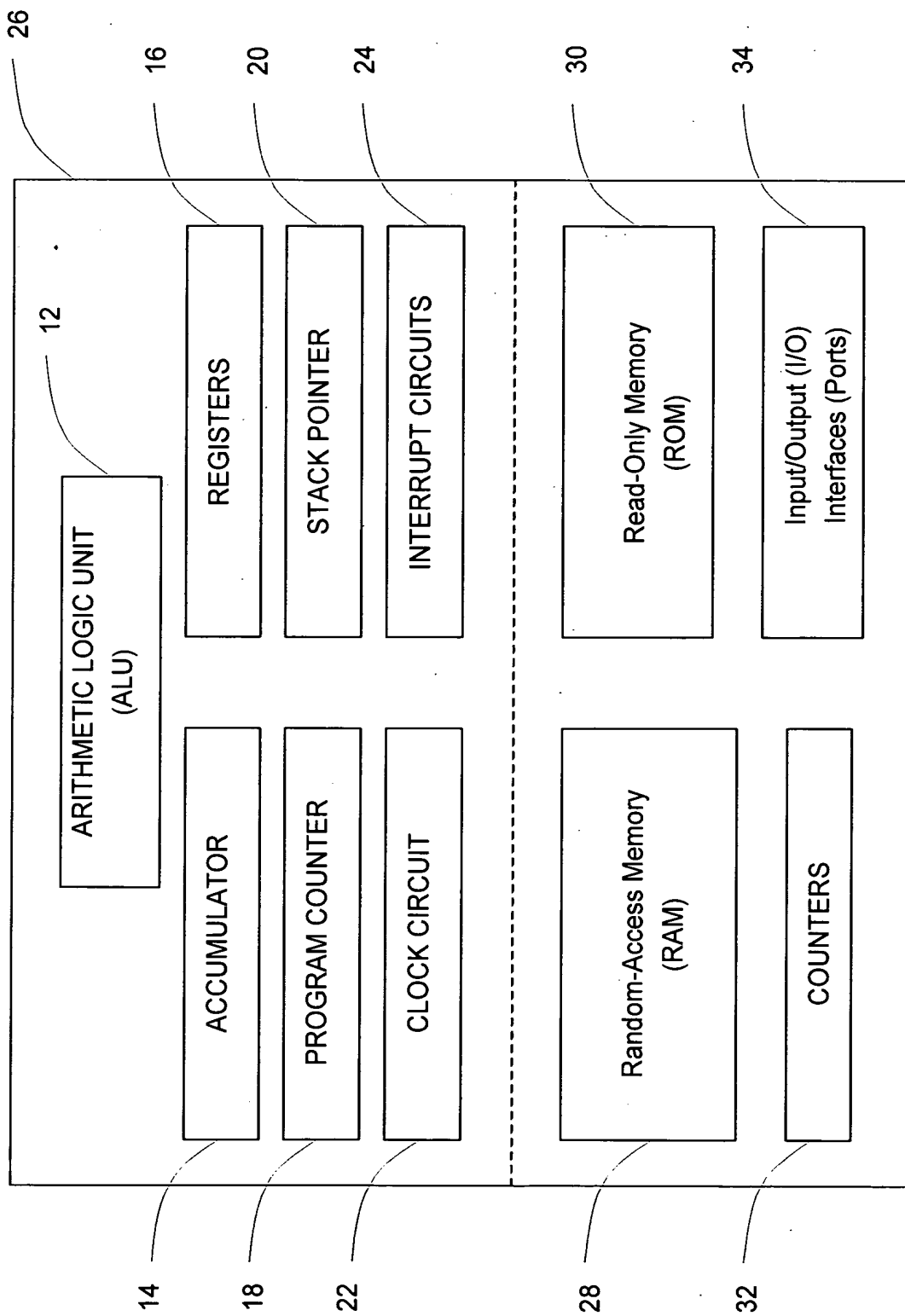


Prior Art

Fig. 1



**Fig. 2**

Prior Art

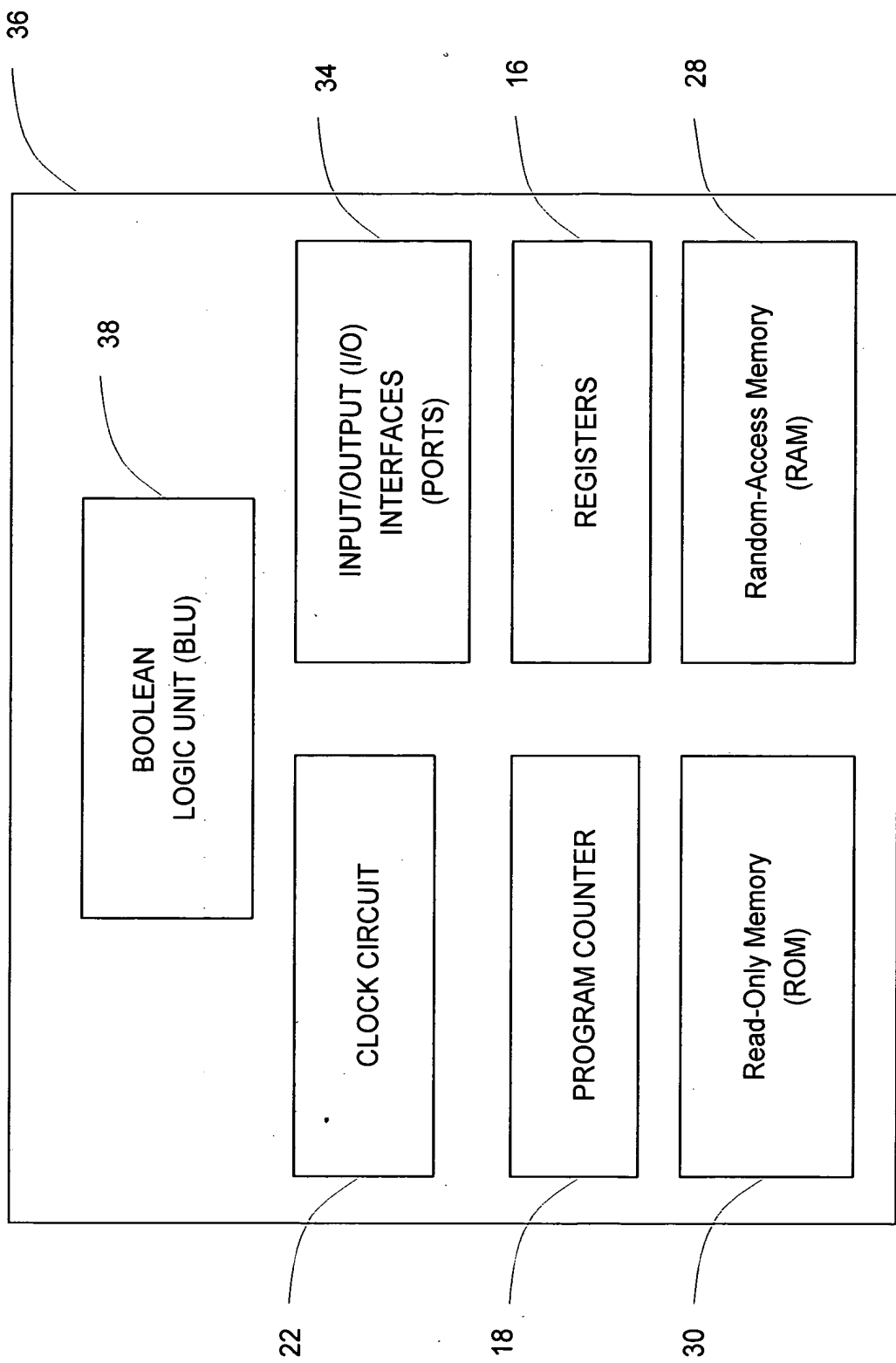
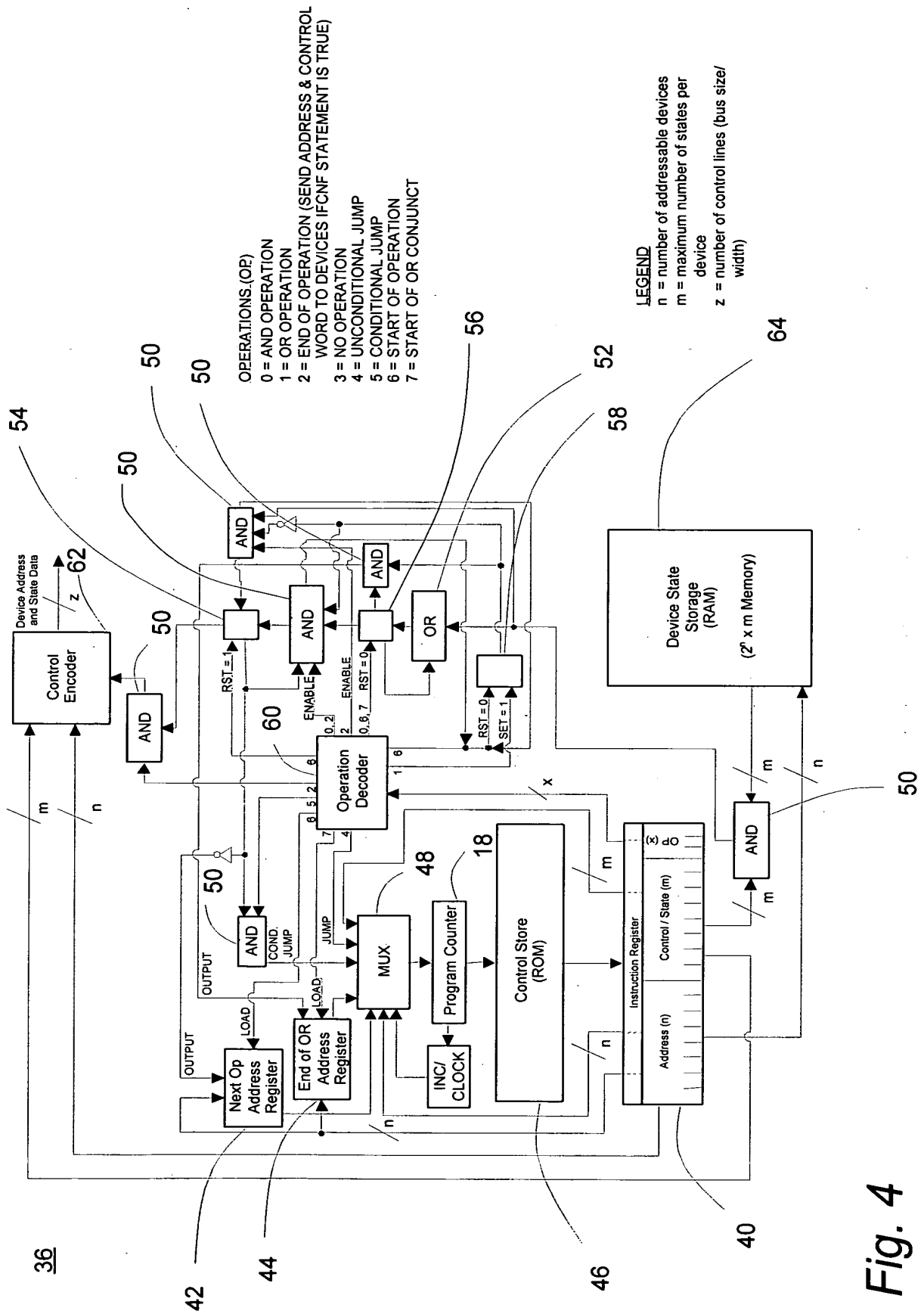
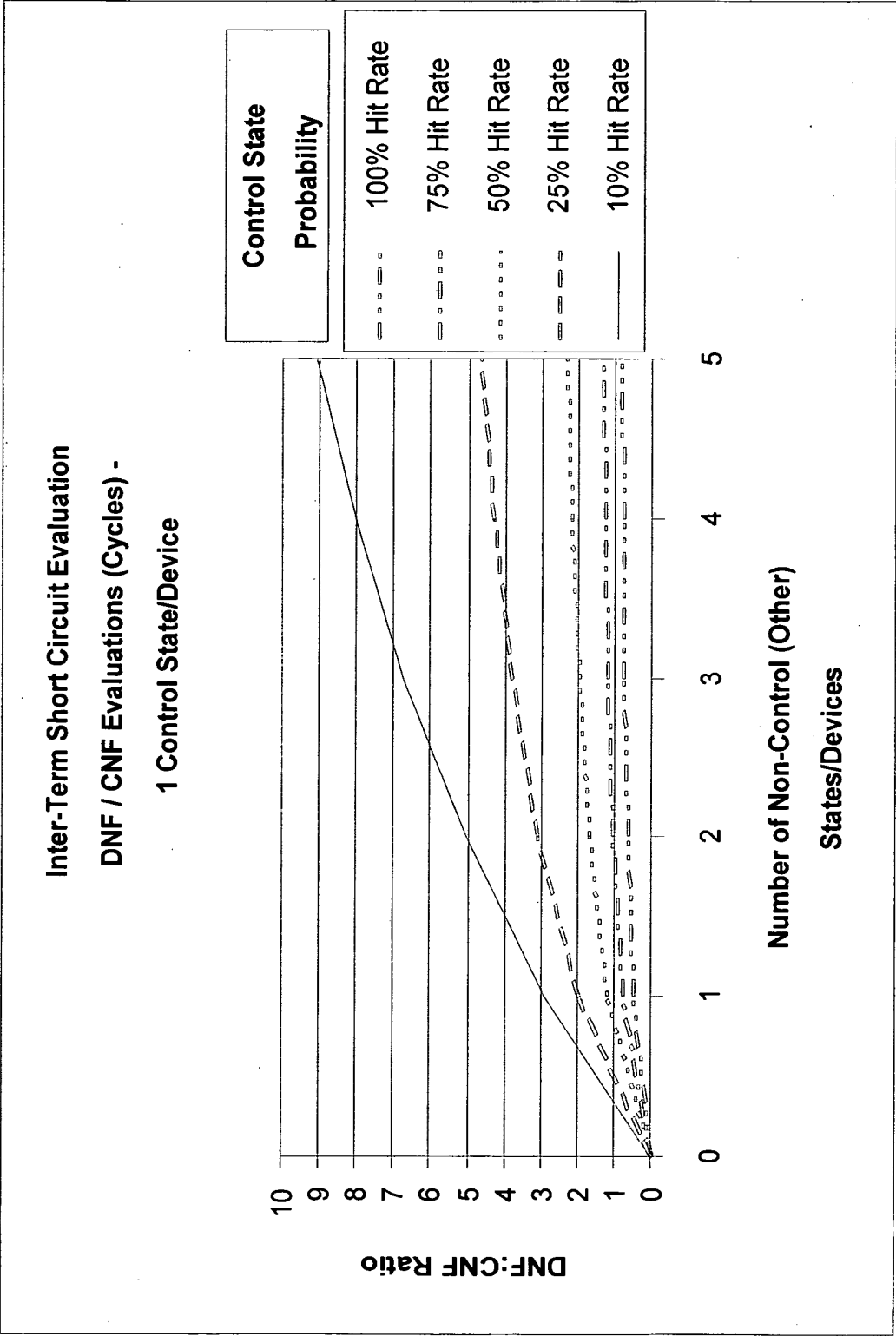


Fig. 3



**Fig. 5**



**Fig. 6**

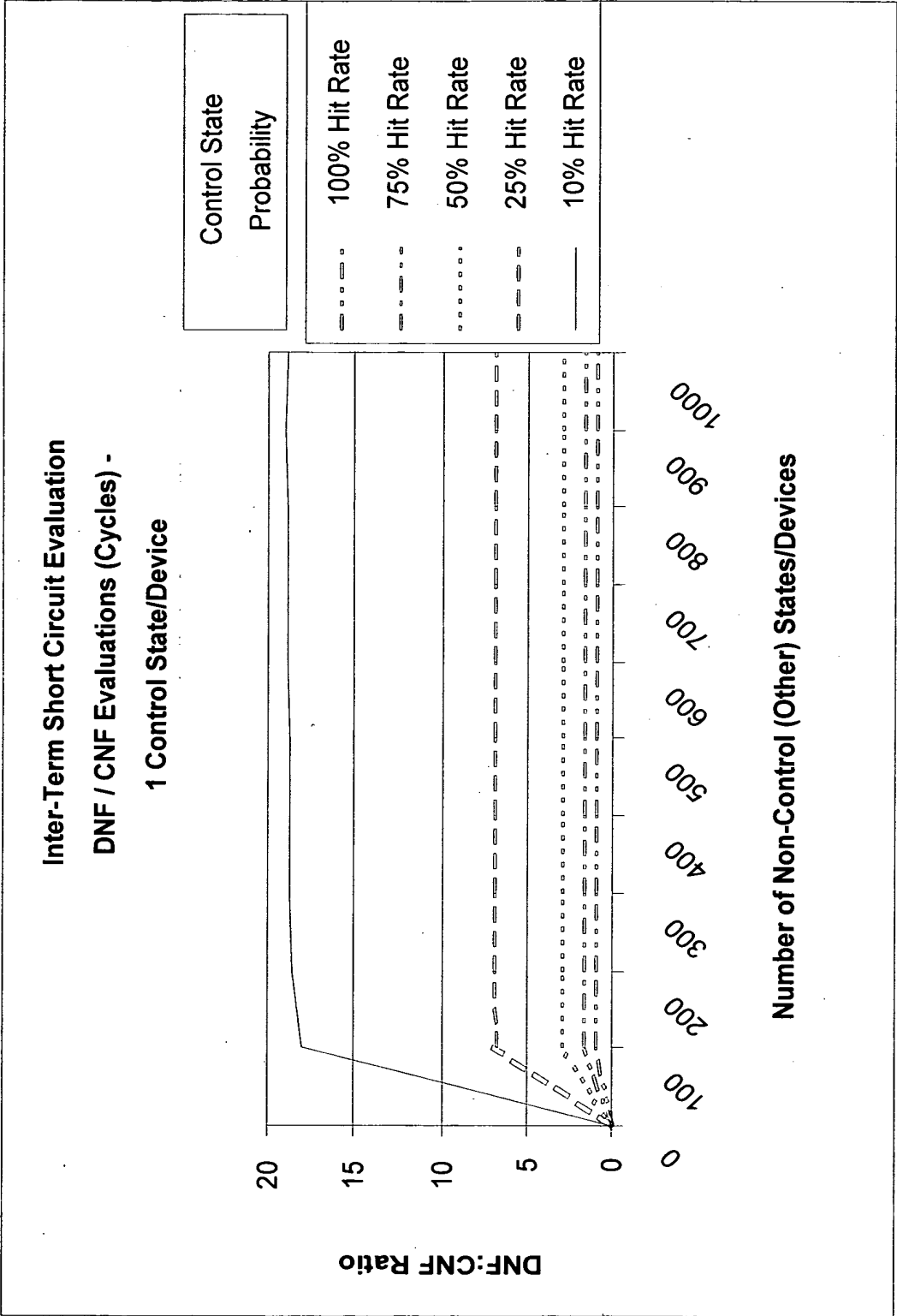


Fig. 7

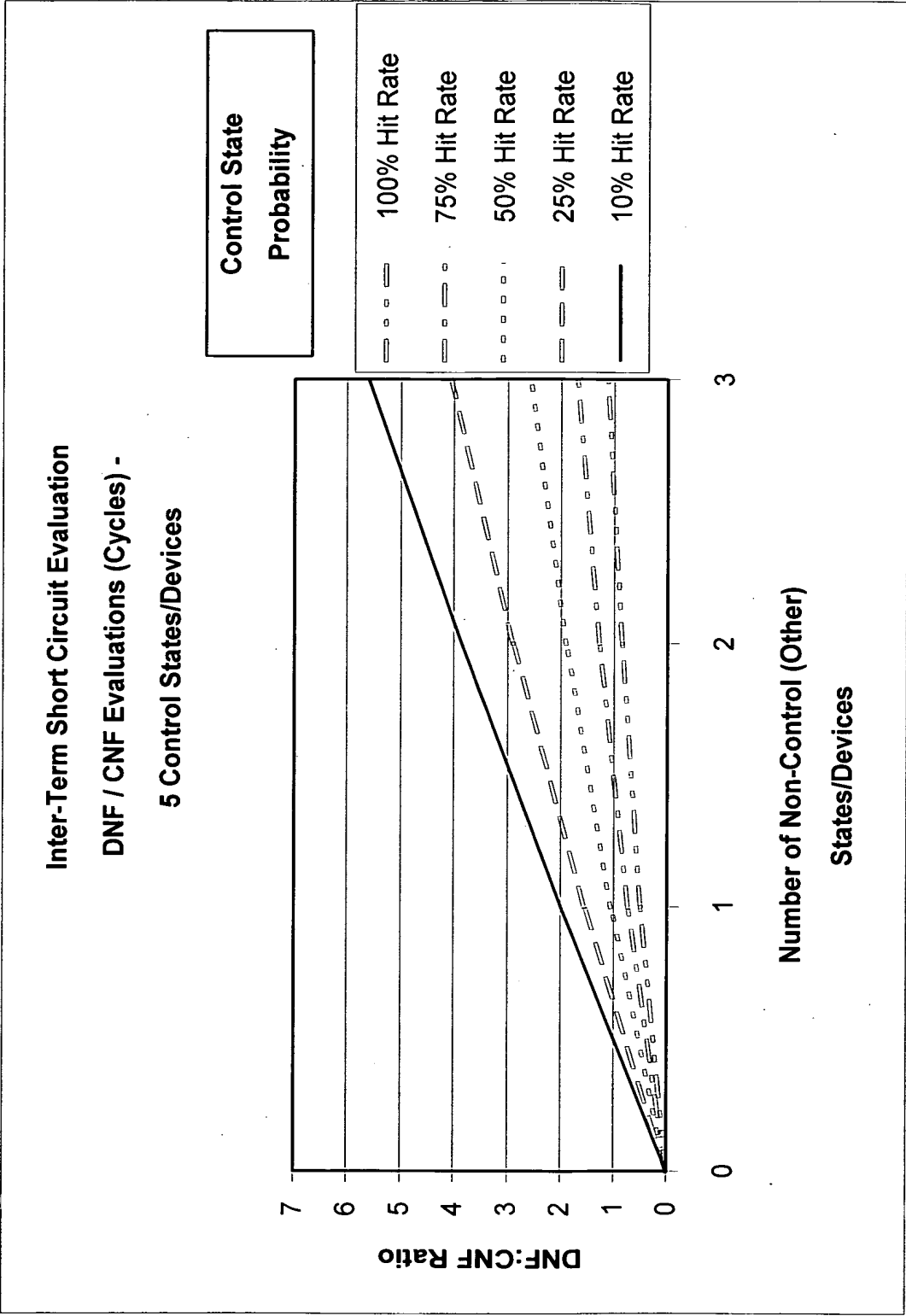


Fig. 8



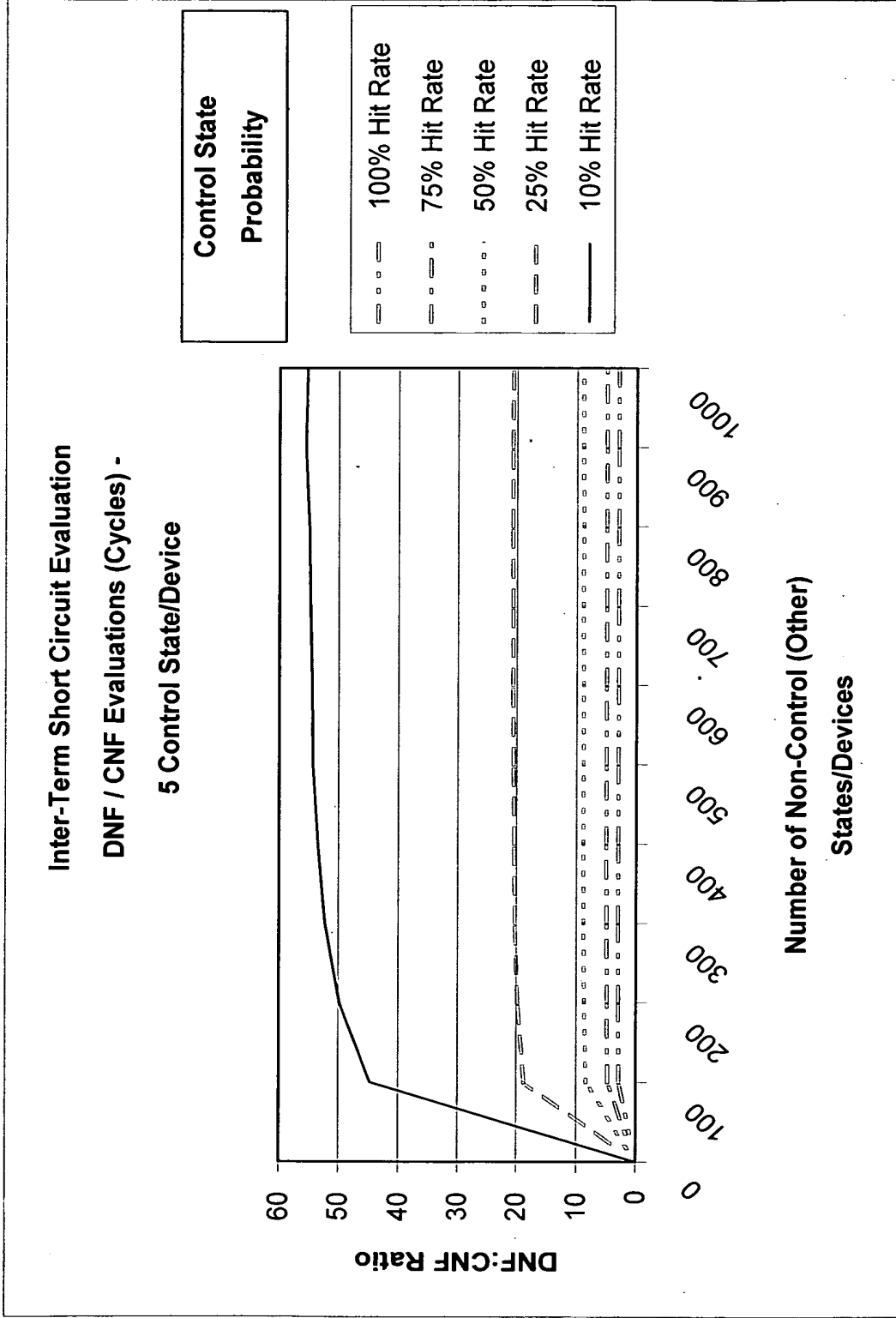


Fig. 9

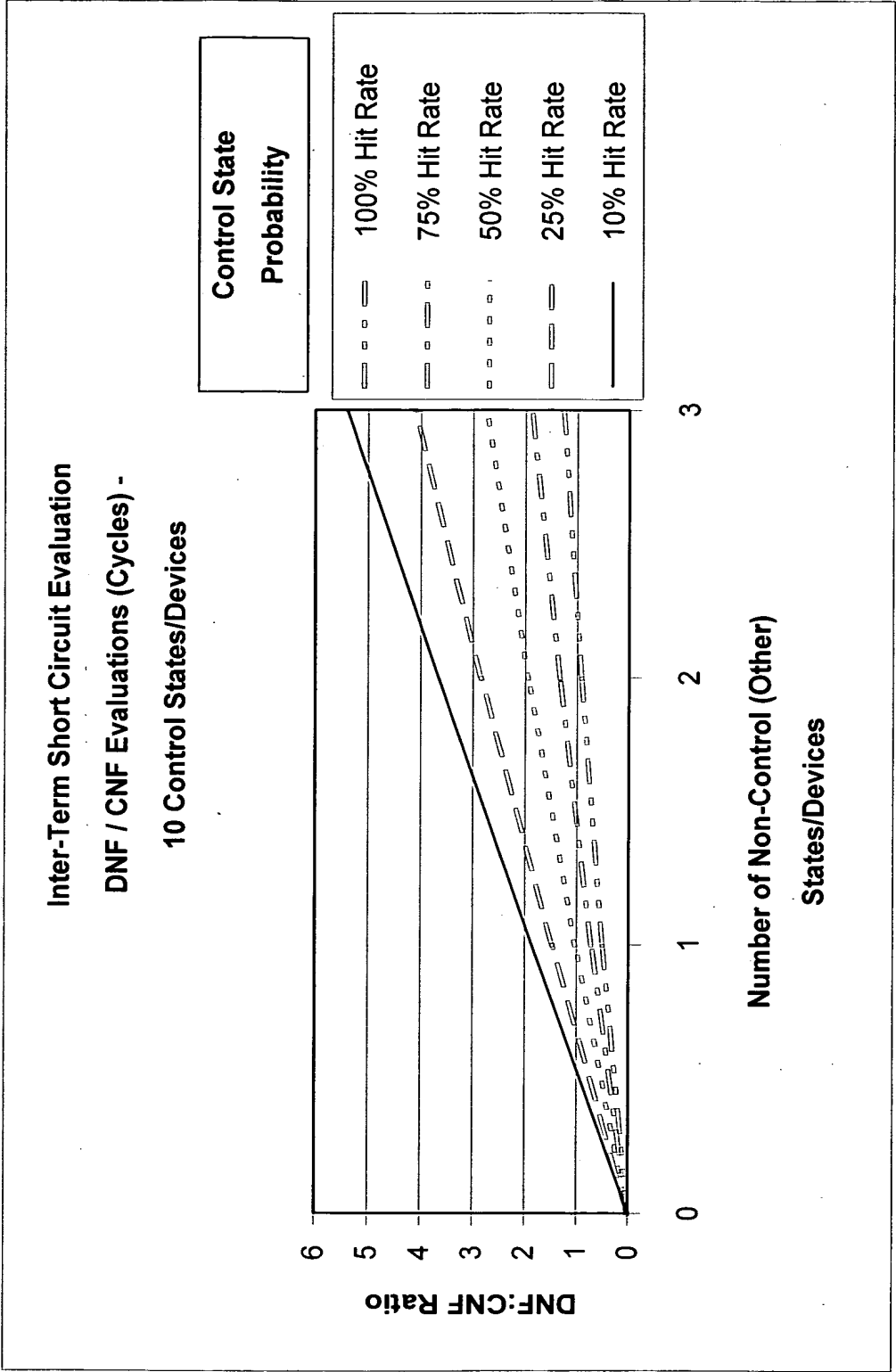


Fig. 10

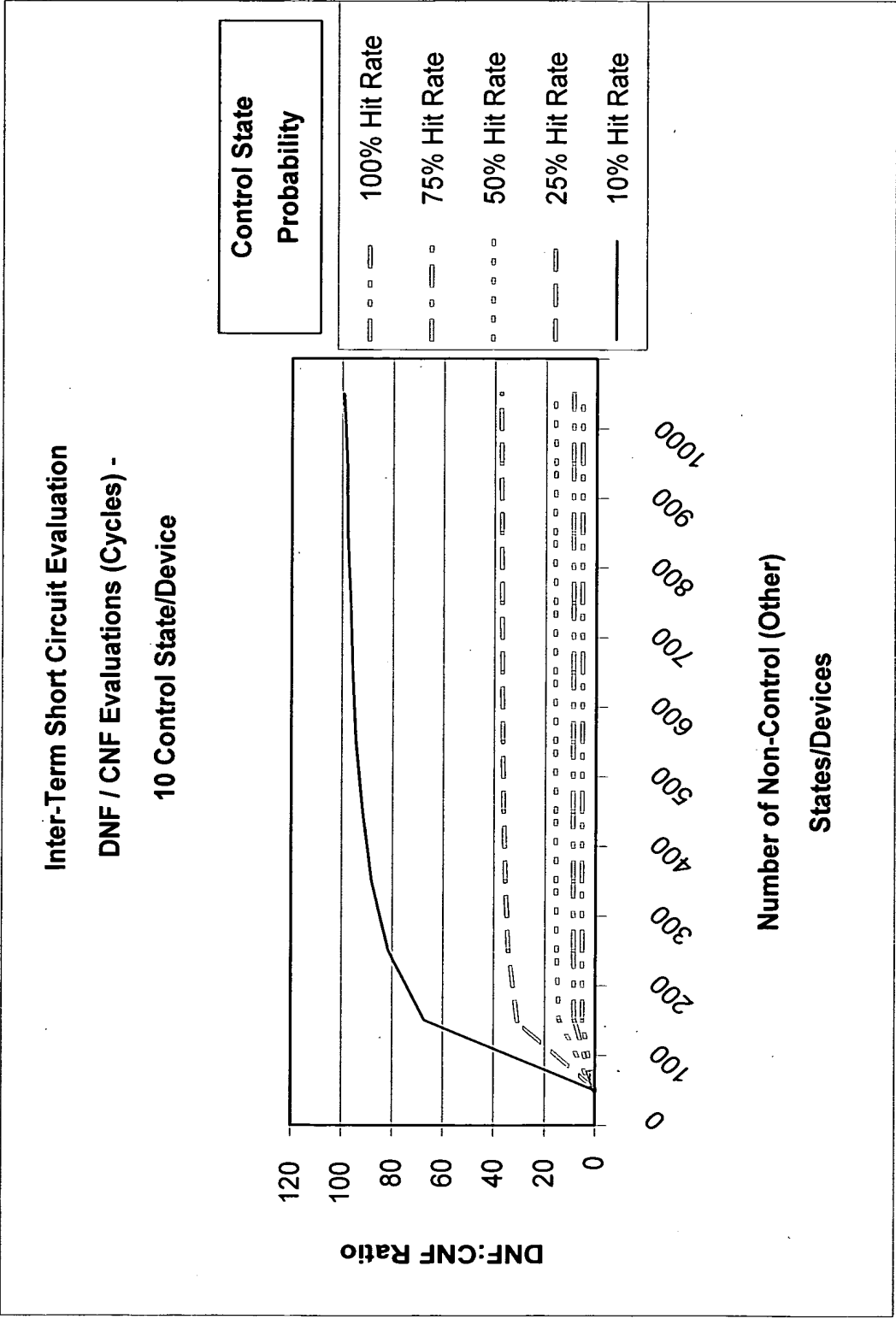


Fig. 11

Inter / Intra-Term Short Circuit Evaluation  
 DNF / CNF Evaluations (Cycles) -  
 1 Control State/Device

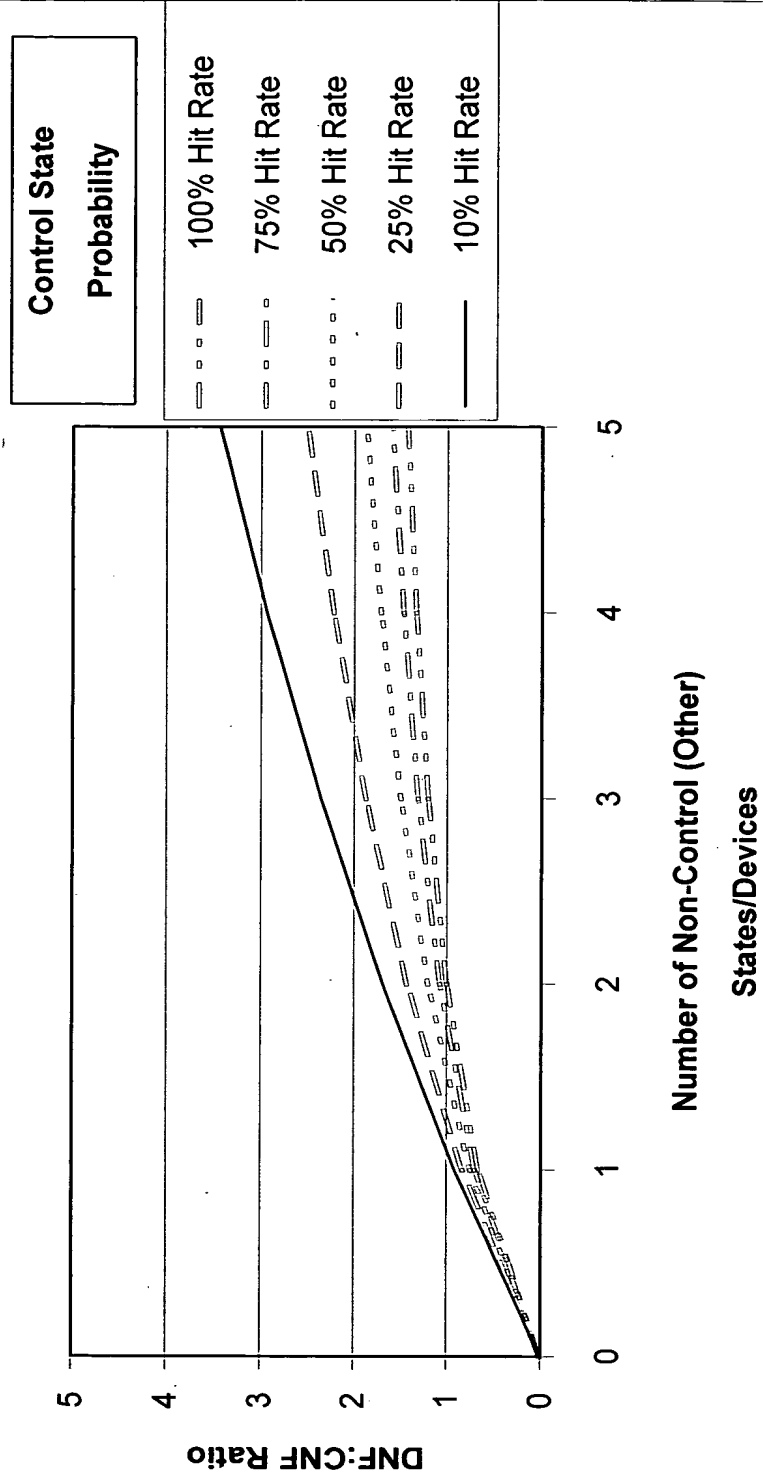


Fig. 12

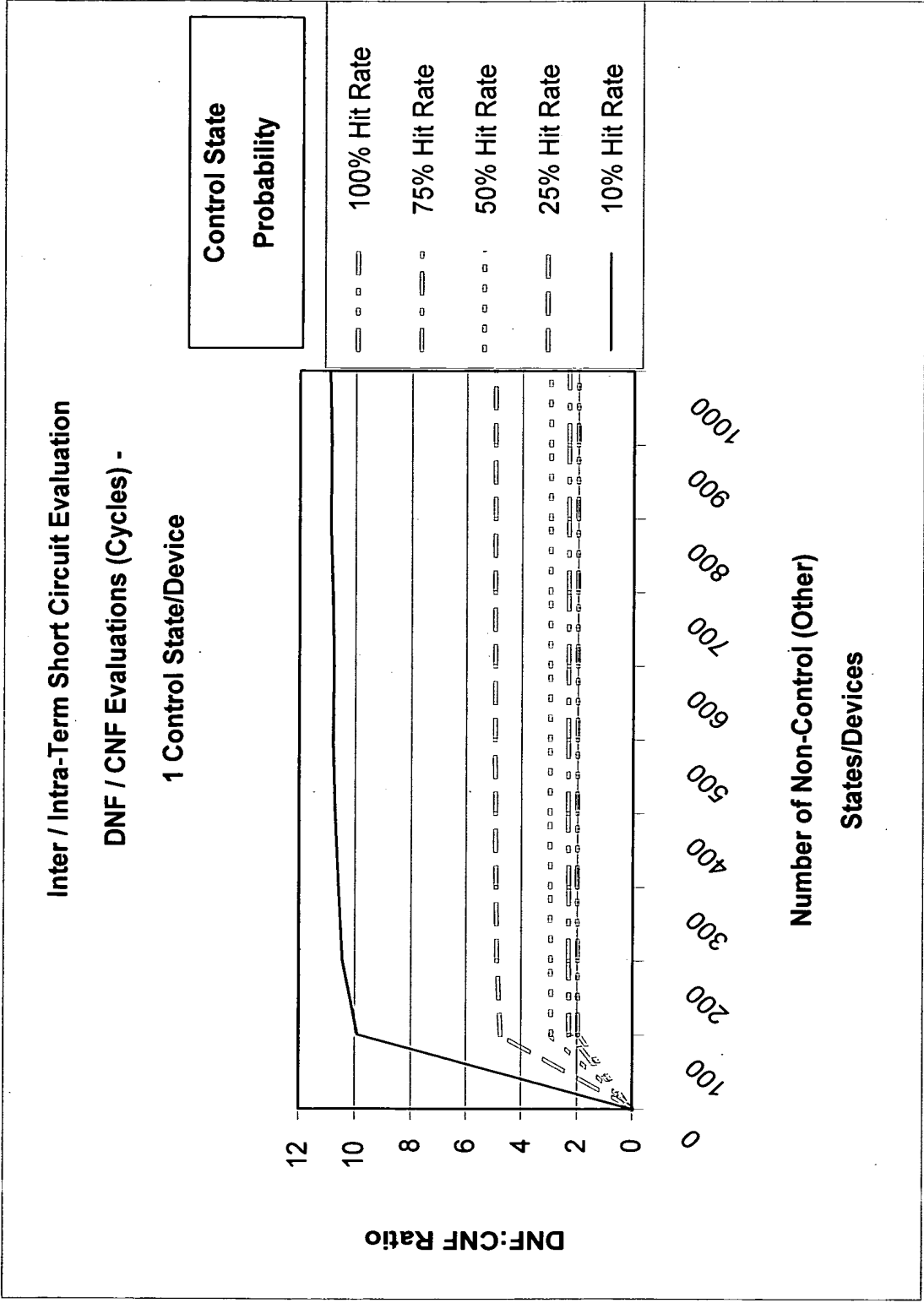


Fig. 13

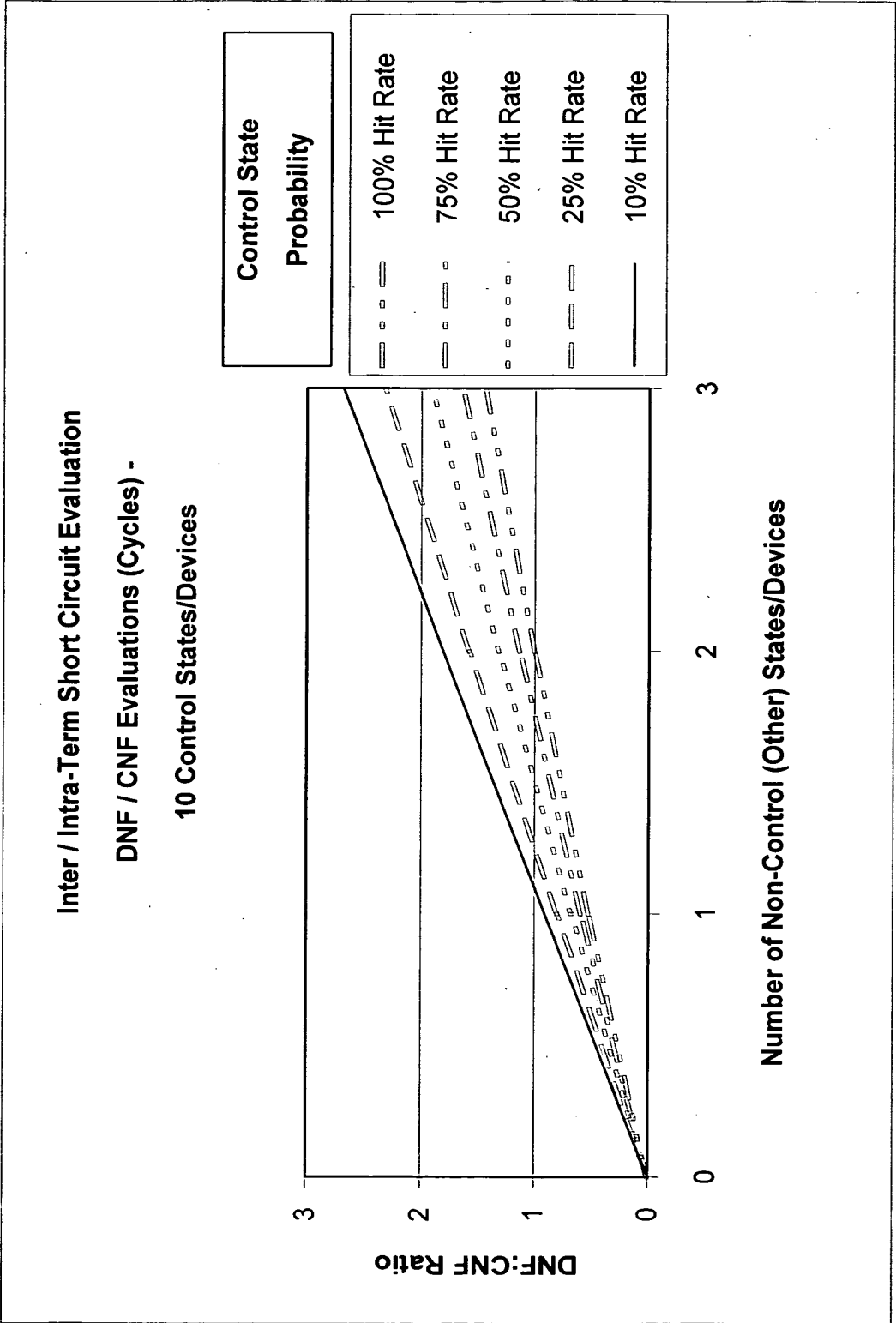
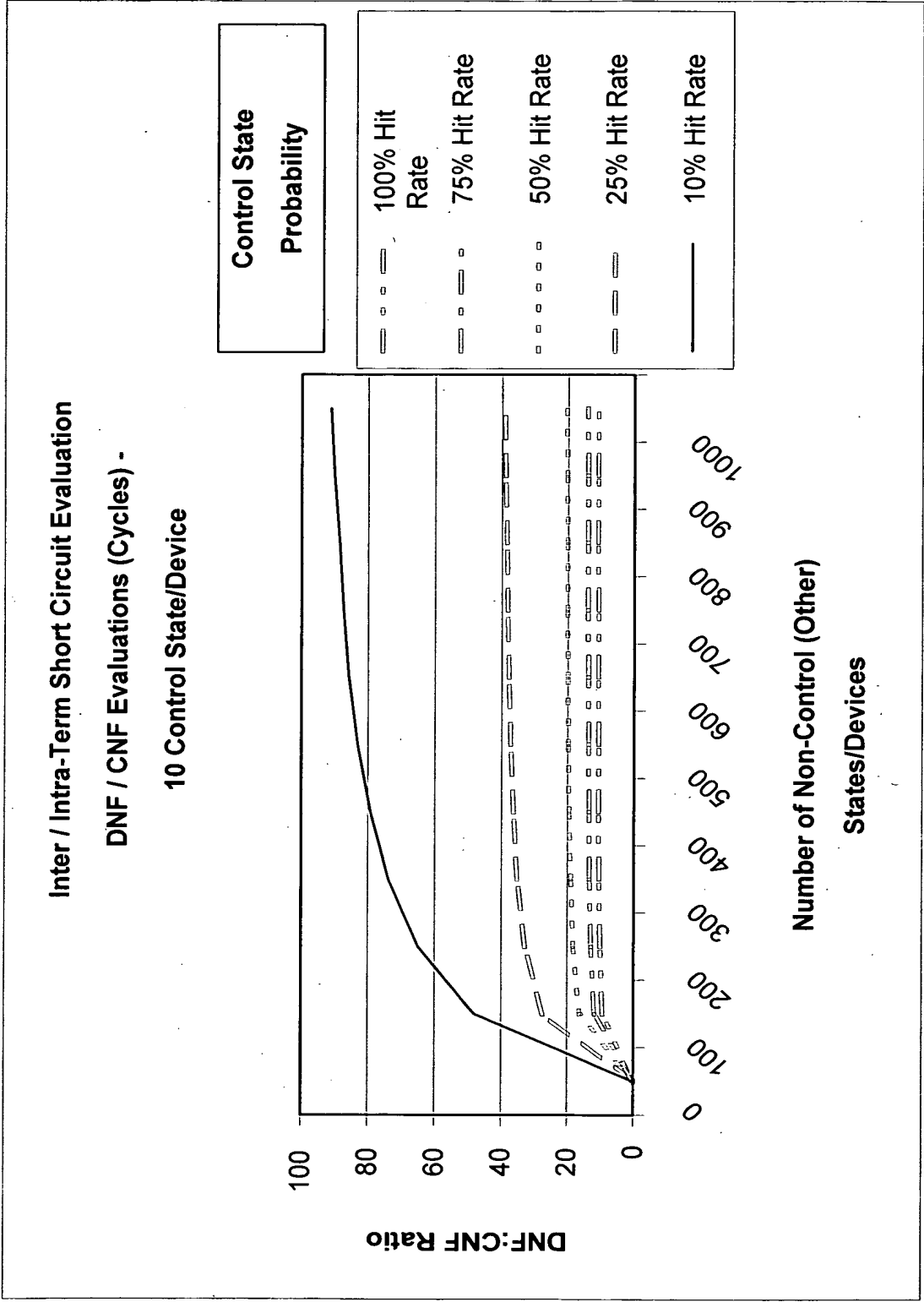
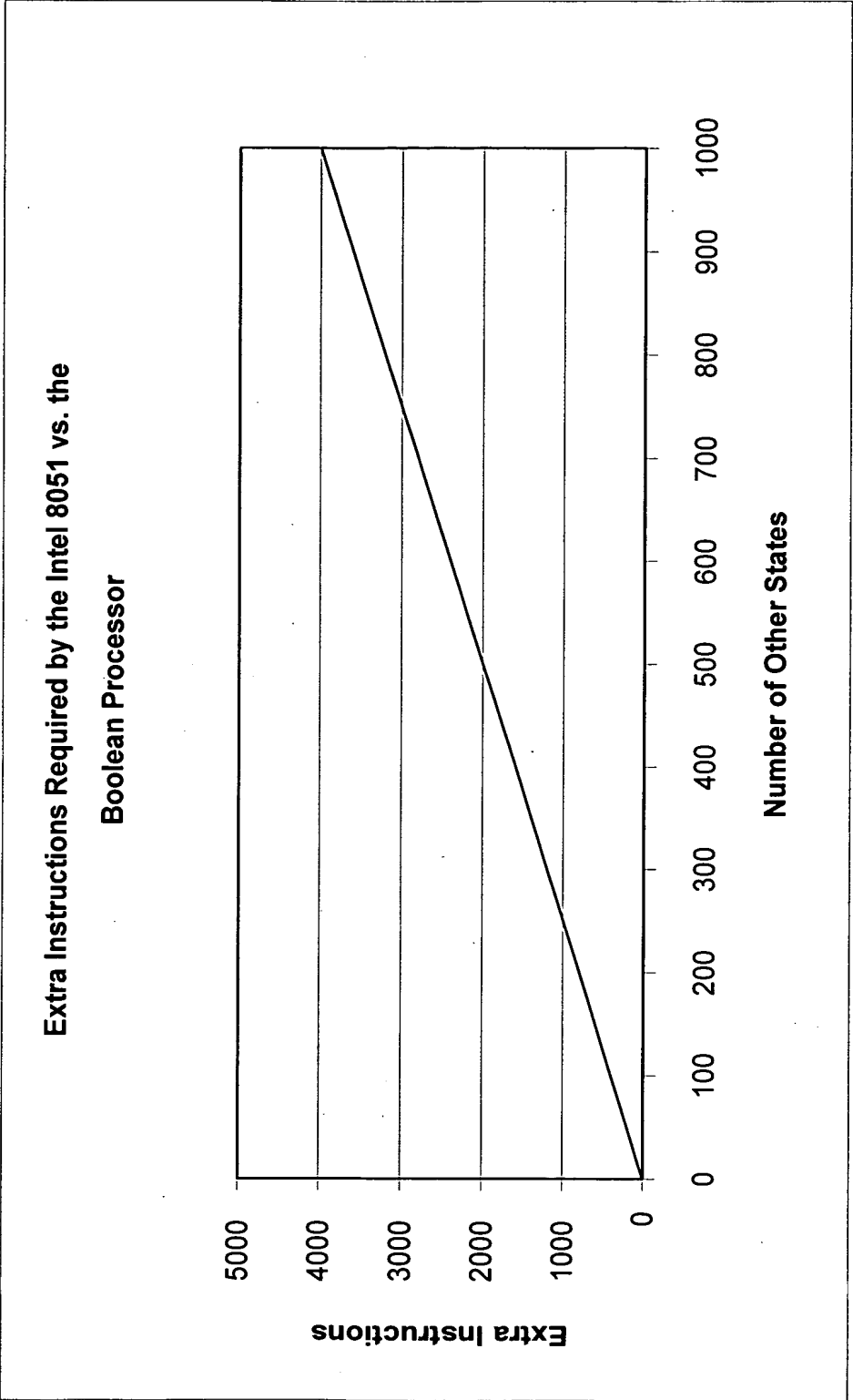


Fig. 14



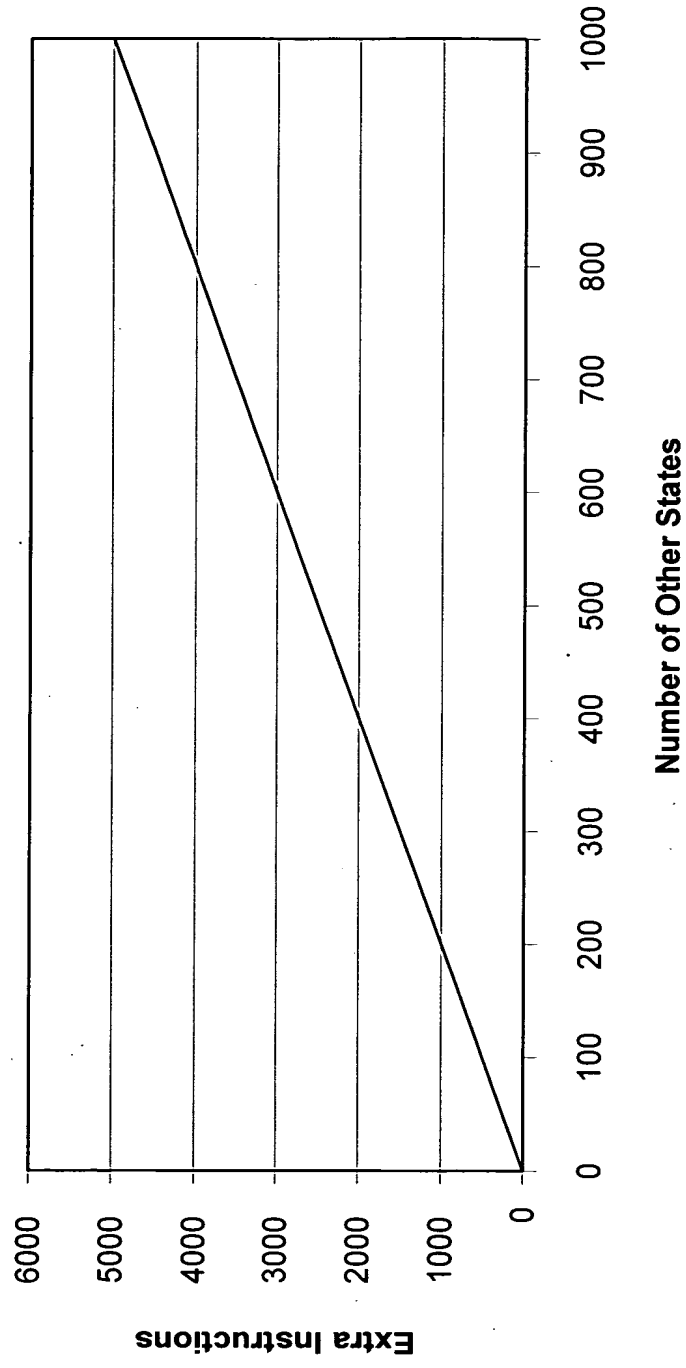
**Fig. 15**



*Fig. 16*

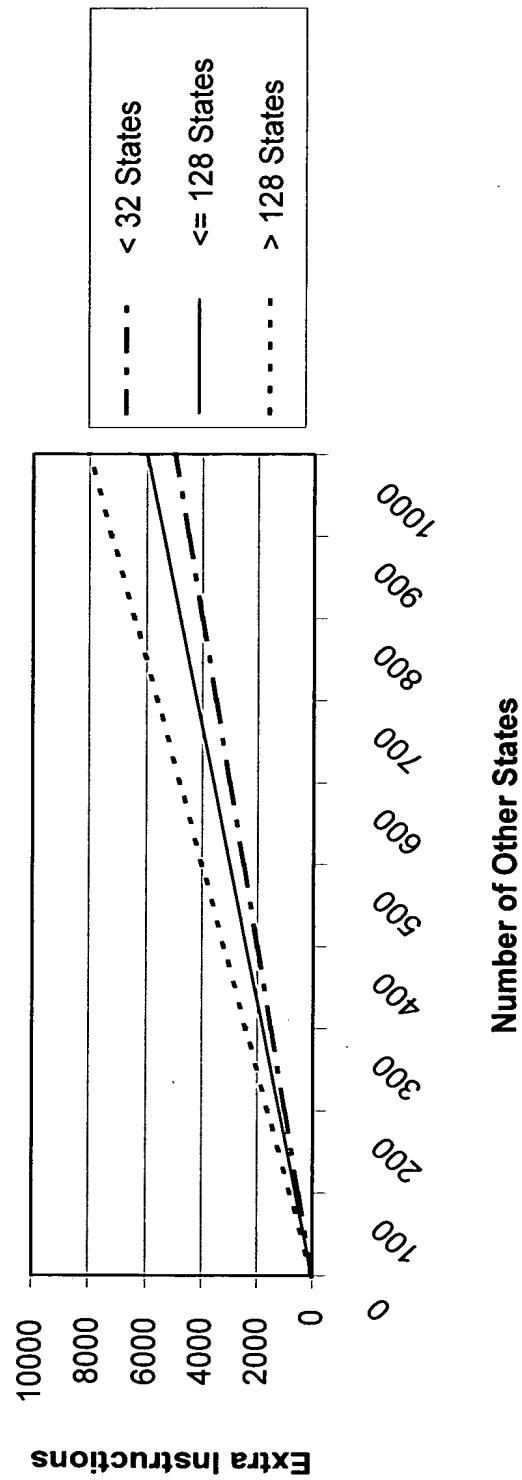


**Extra Instructions Required by the  
Intel 8086 Family of Microprocessors  
vs. the Boolean Processor**



**Fig. 17**

**Extra Instructions Required by the  
Motorola MMC2107 Microcontroller  
vs. the Boolean Processor**



**Fig. 18**

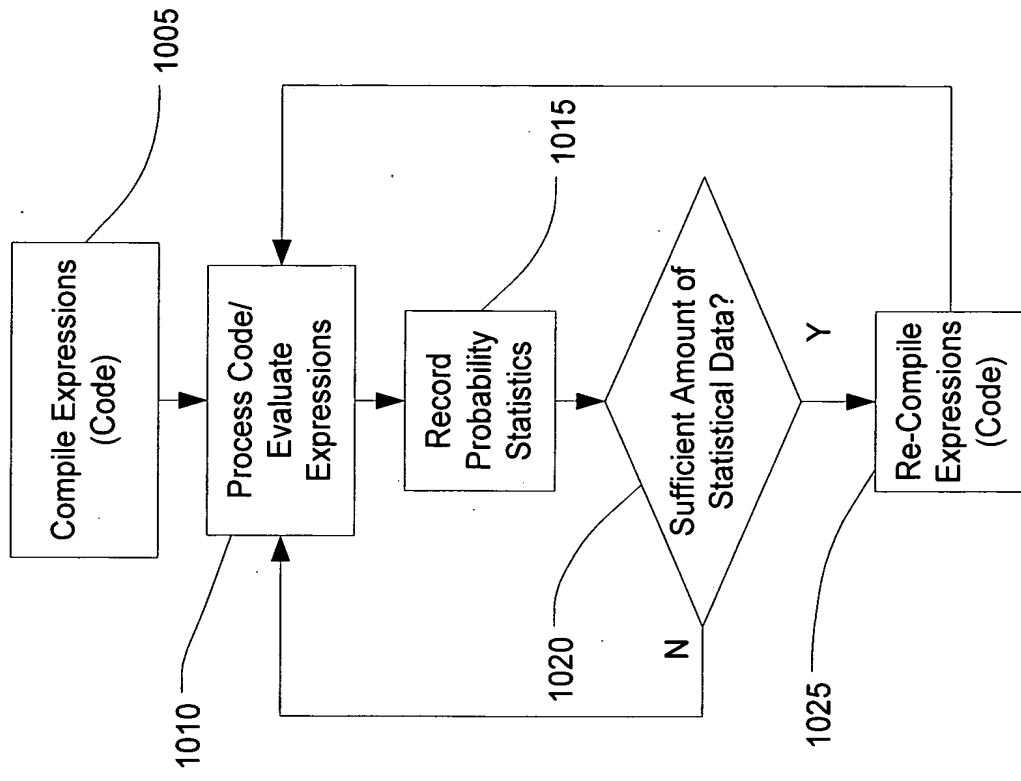


Fig. 19

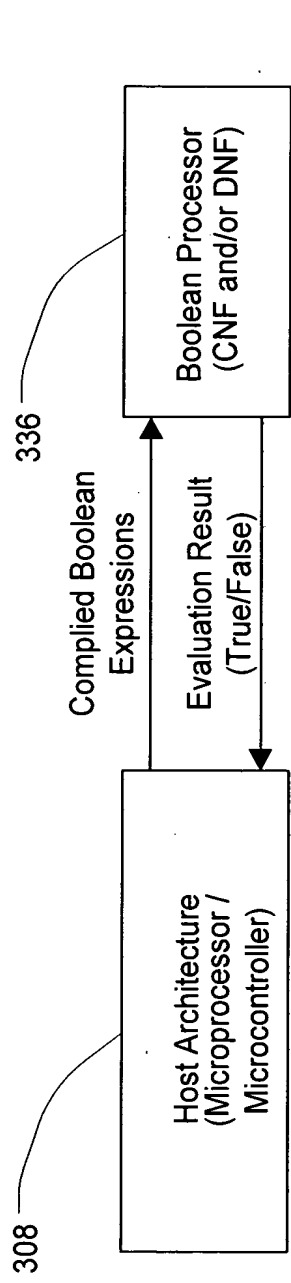


Fig. 20

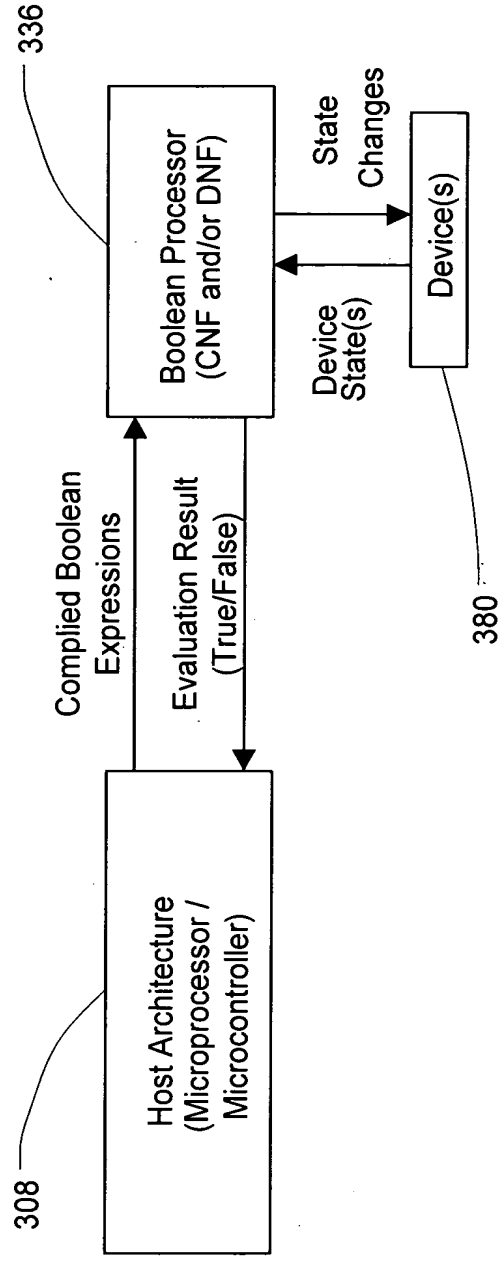
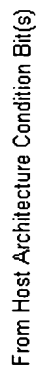


Fig. 21



**Fig. 22**

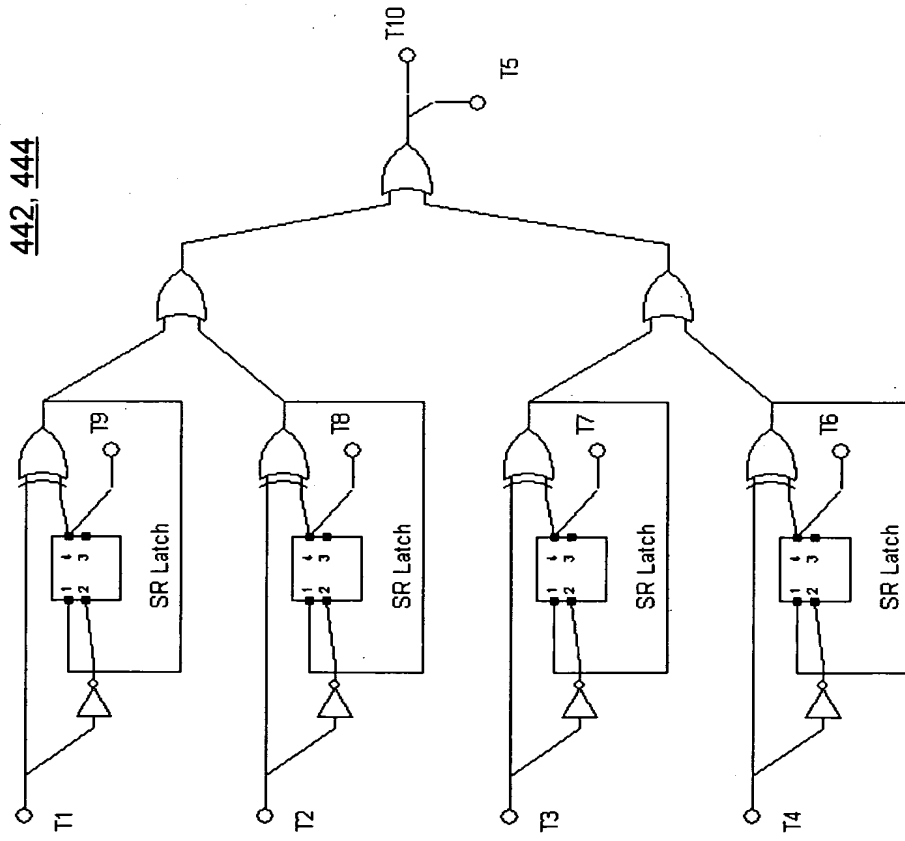


Fig. 23

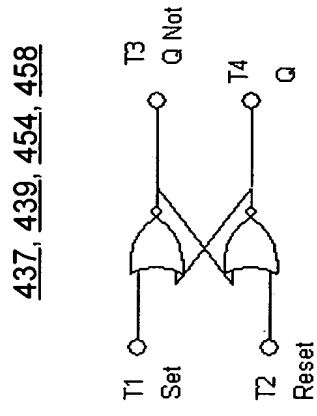


Fig. 24

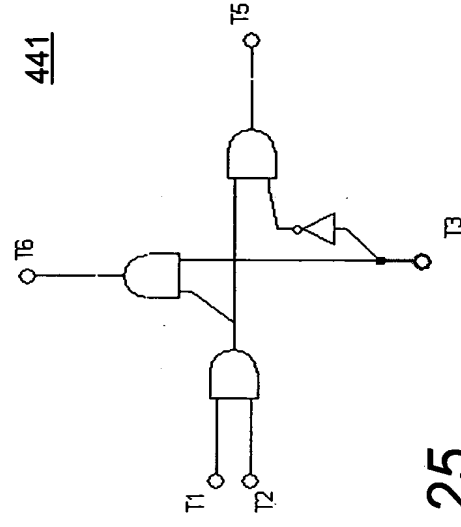


Fig. 25

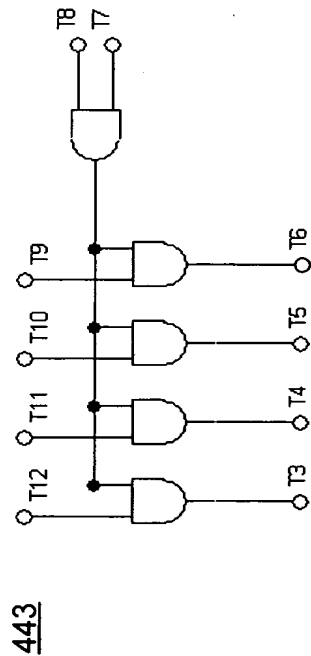


Fig. 26

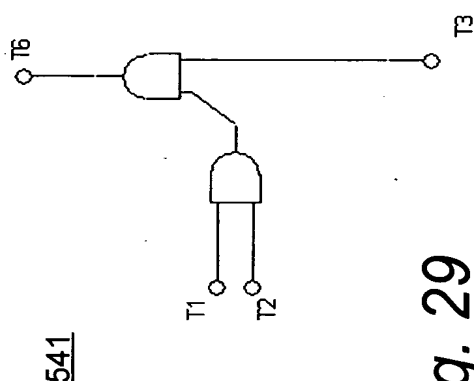


Fig. 29

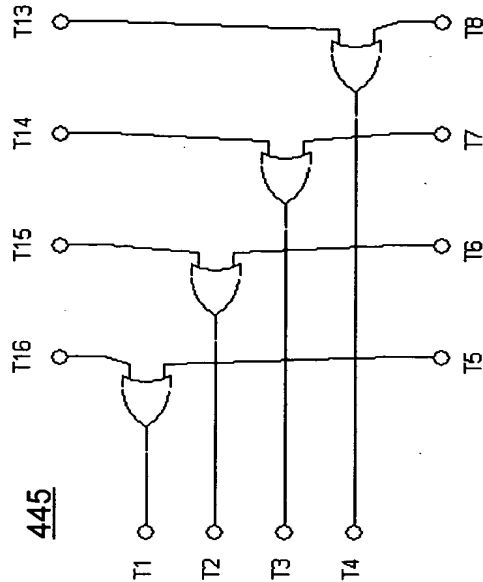


Fig. 27

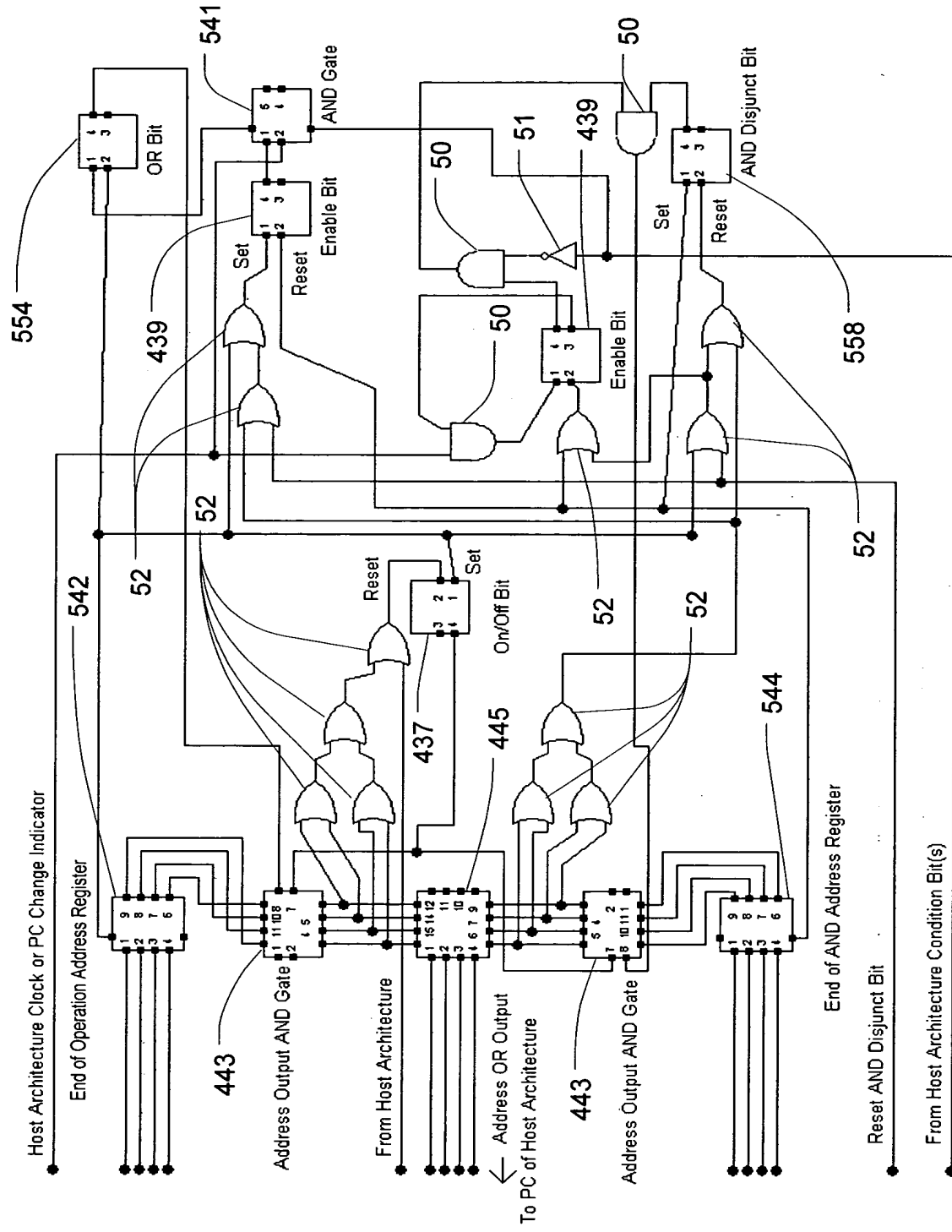


Fig. 28



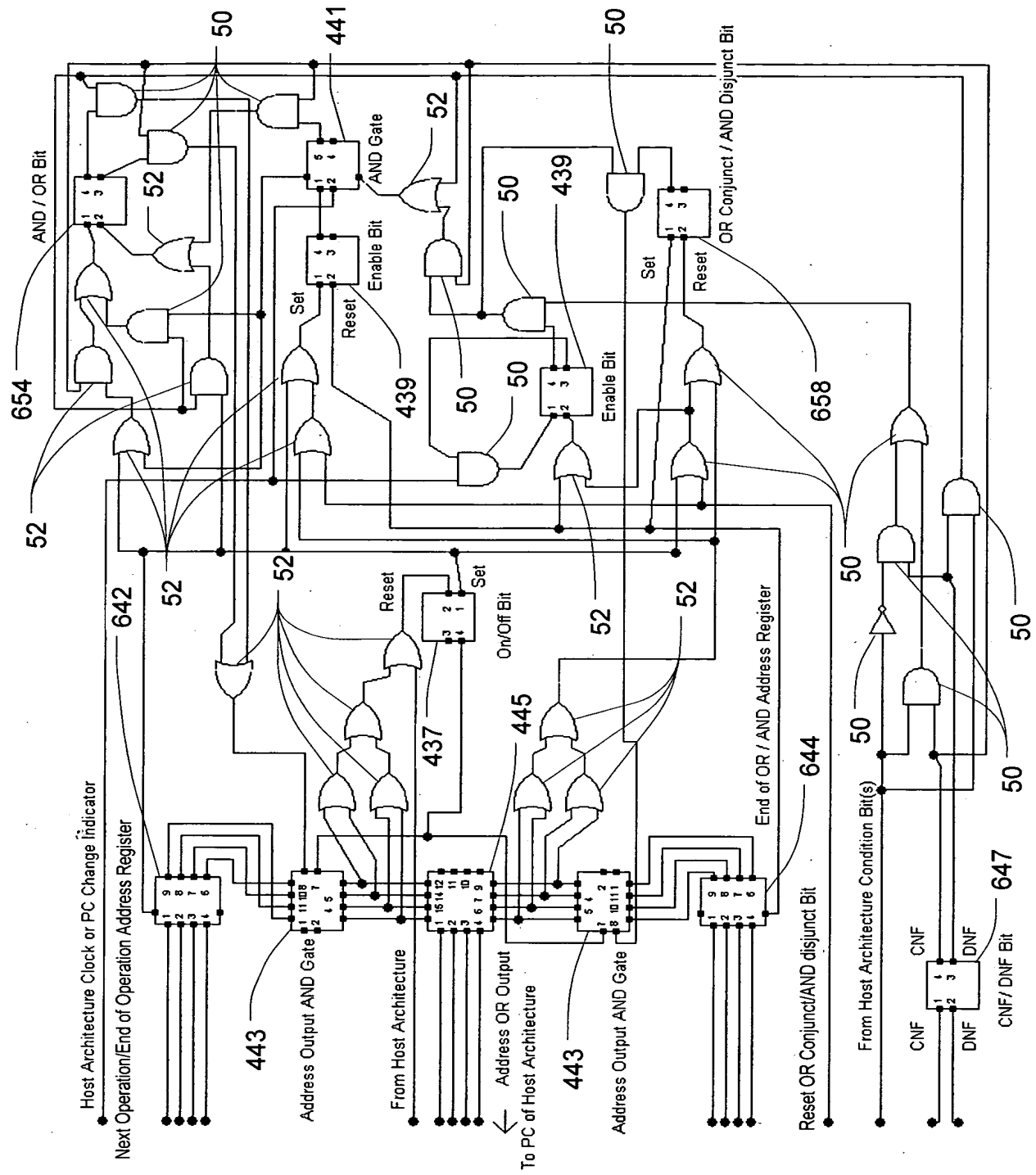


Fig. 30

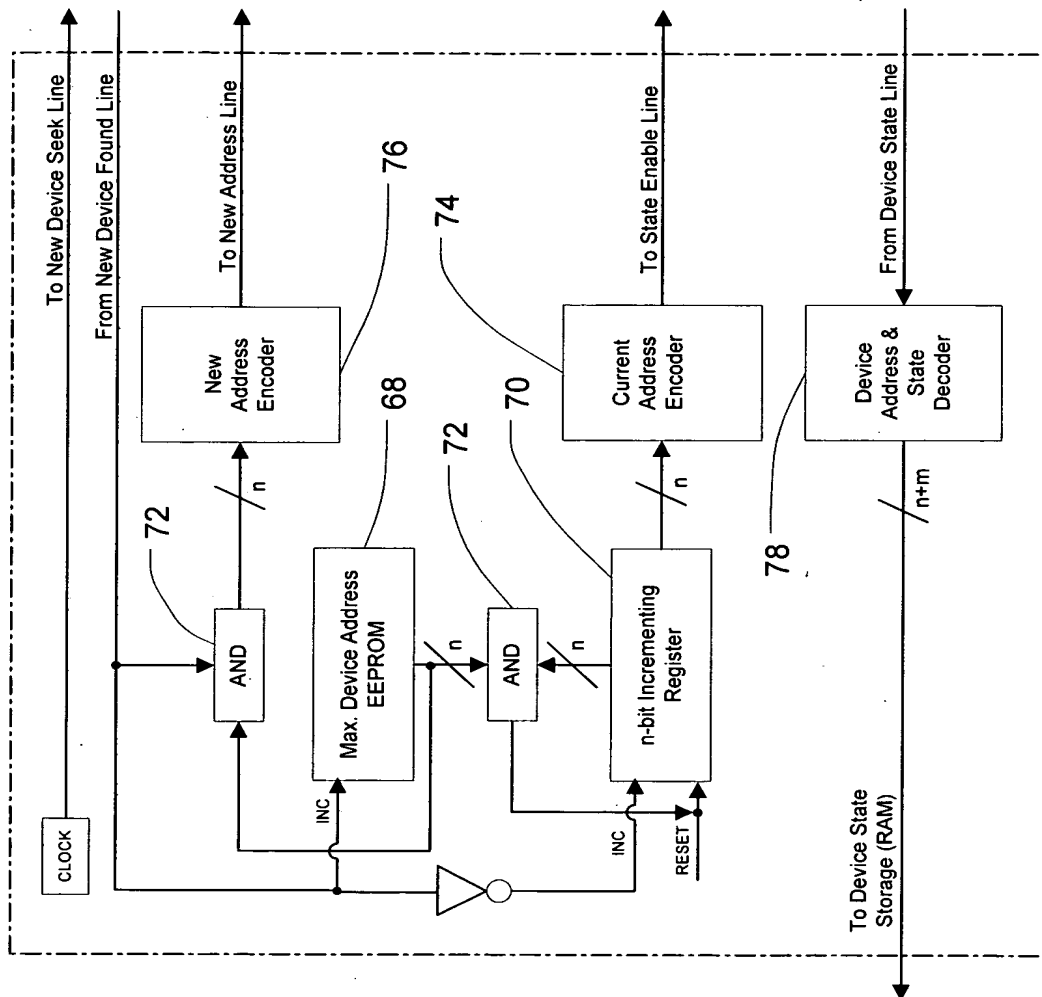


Fig. 31

80

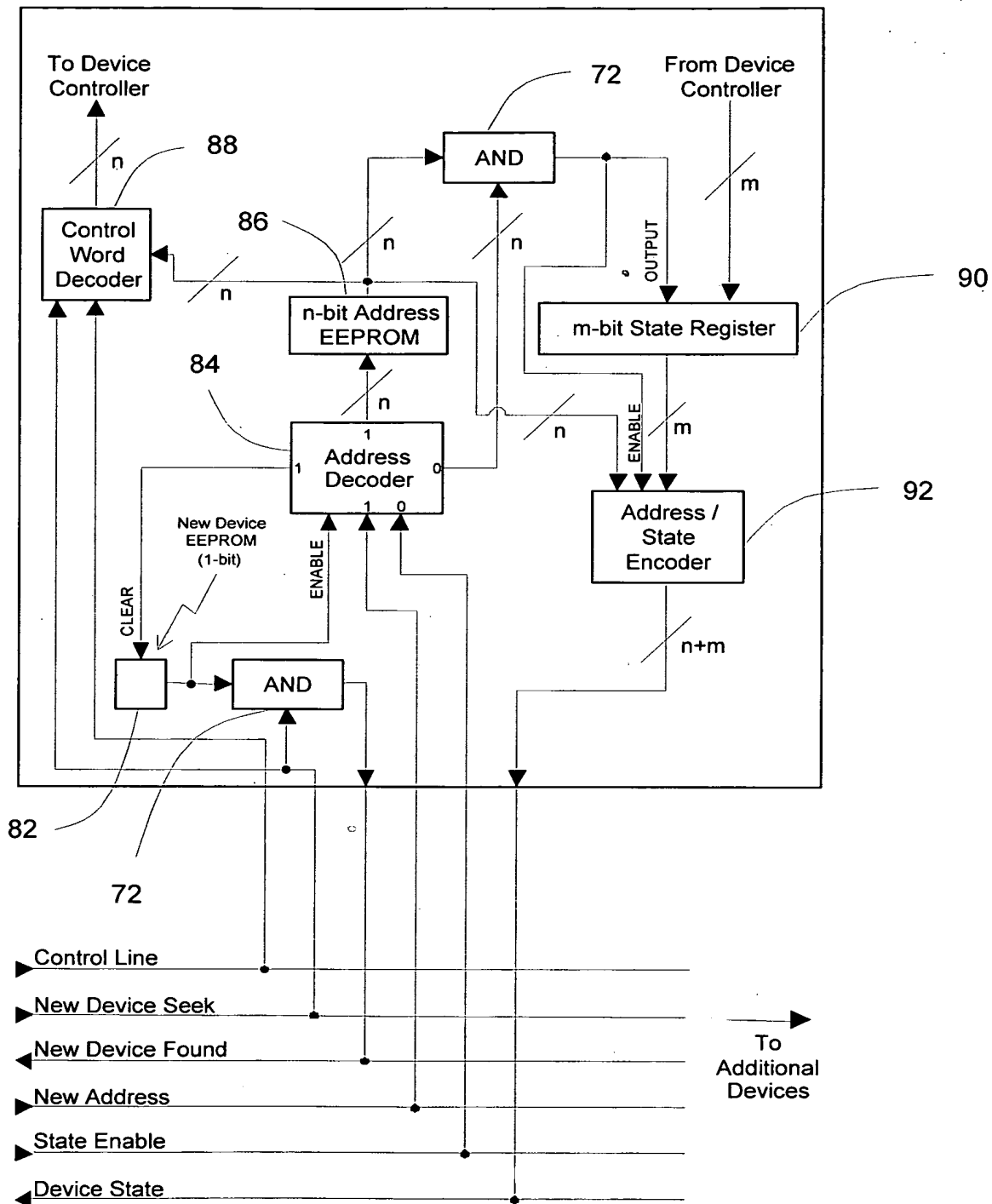


Fig. 32

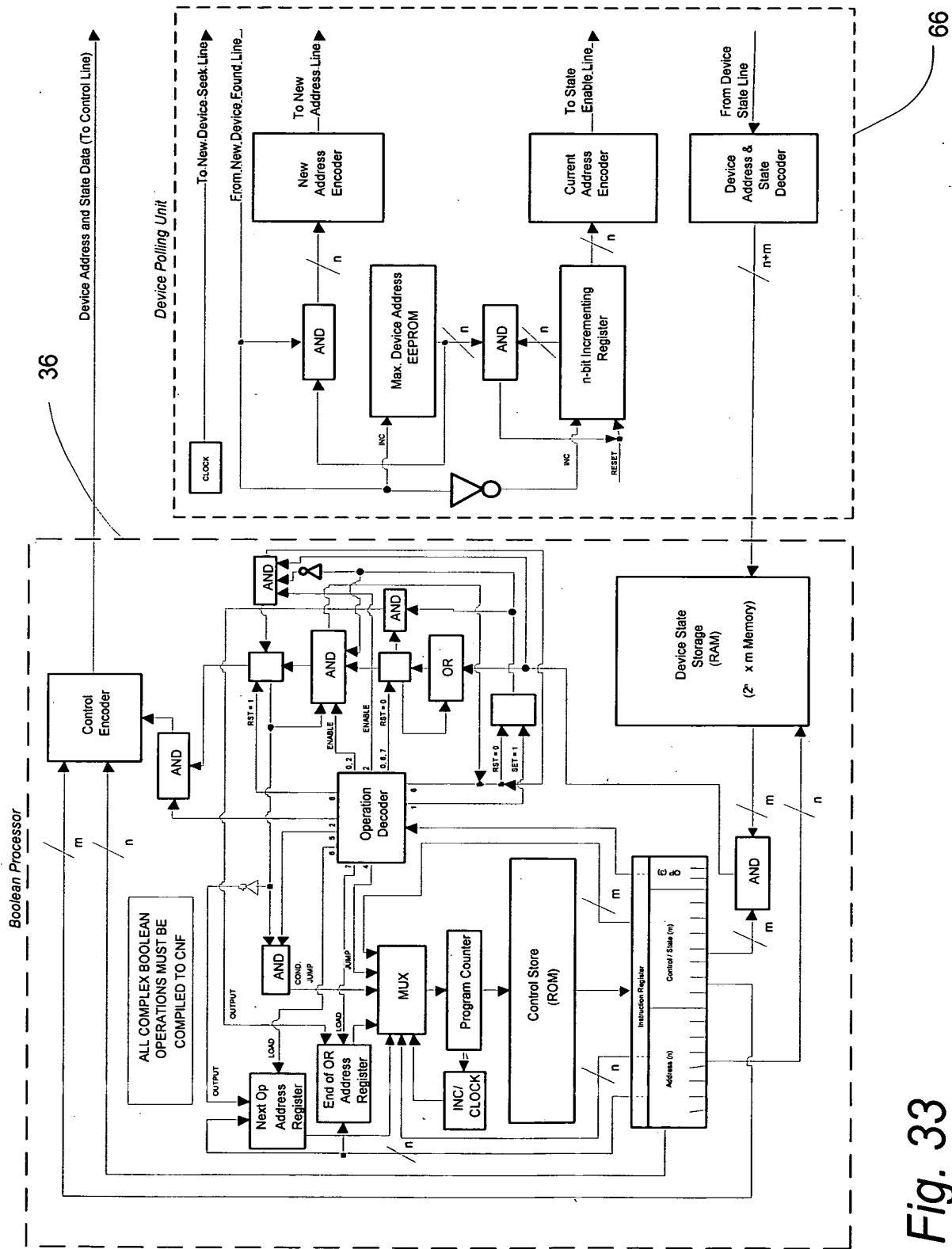
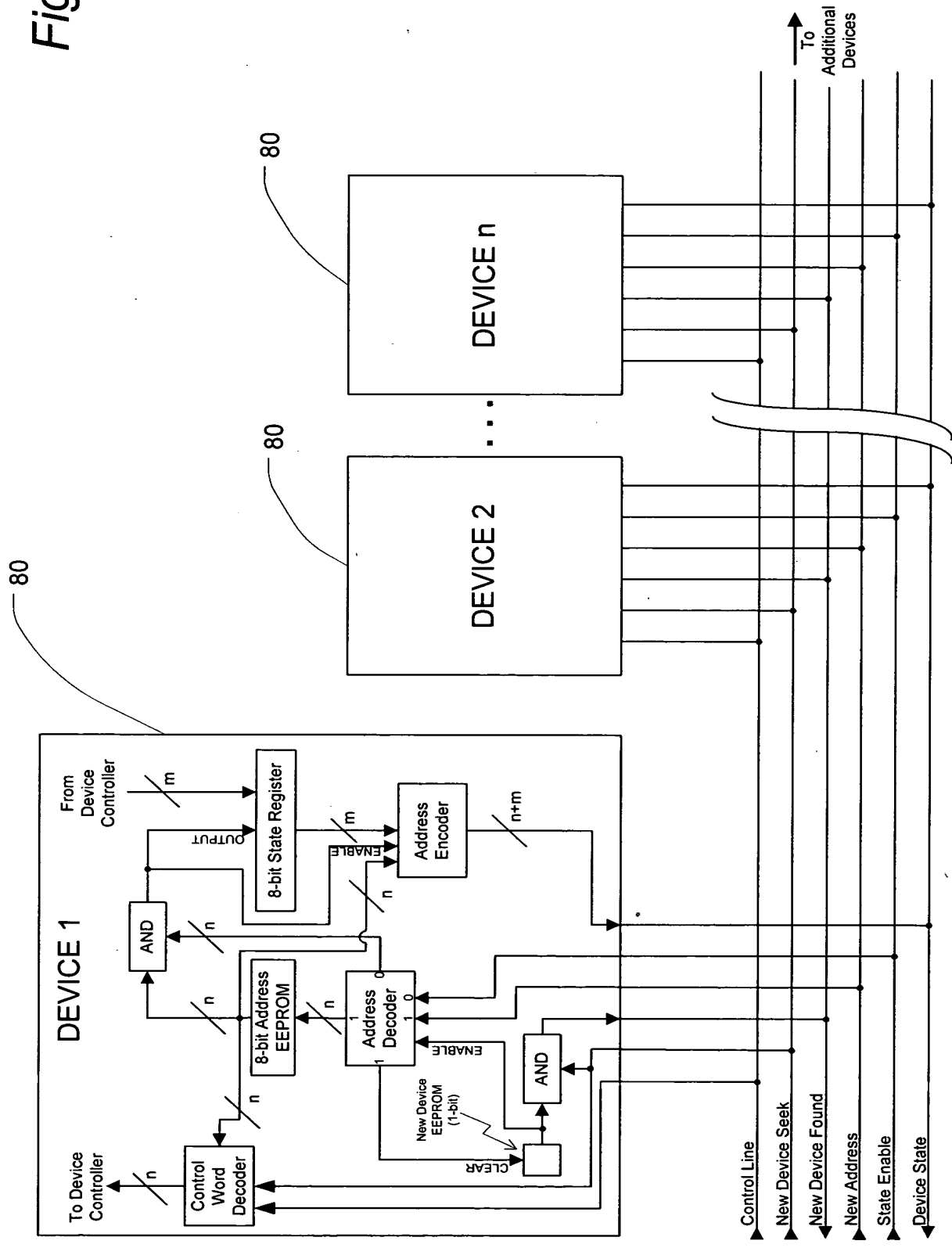


Fig. 33

Fig. 34



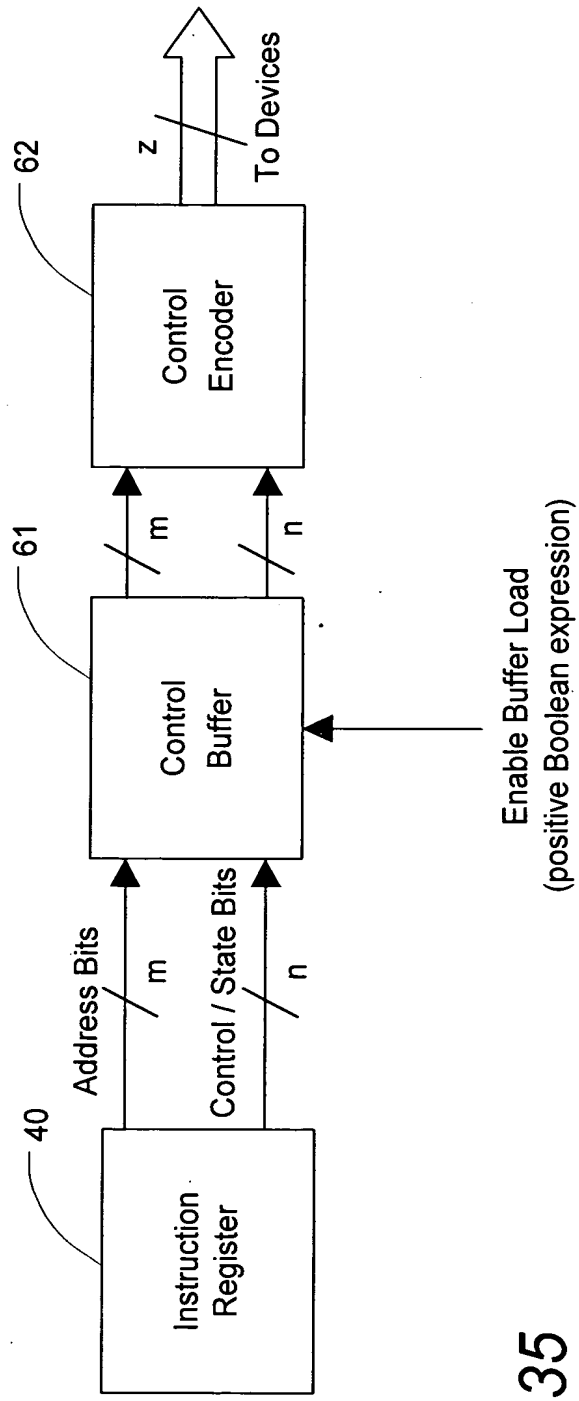


Fig. 35

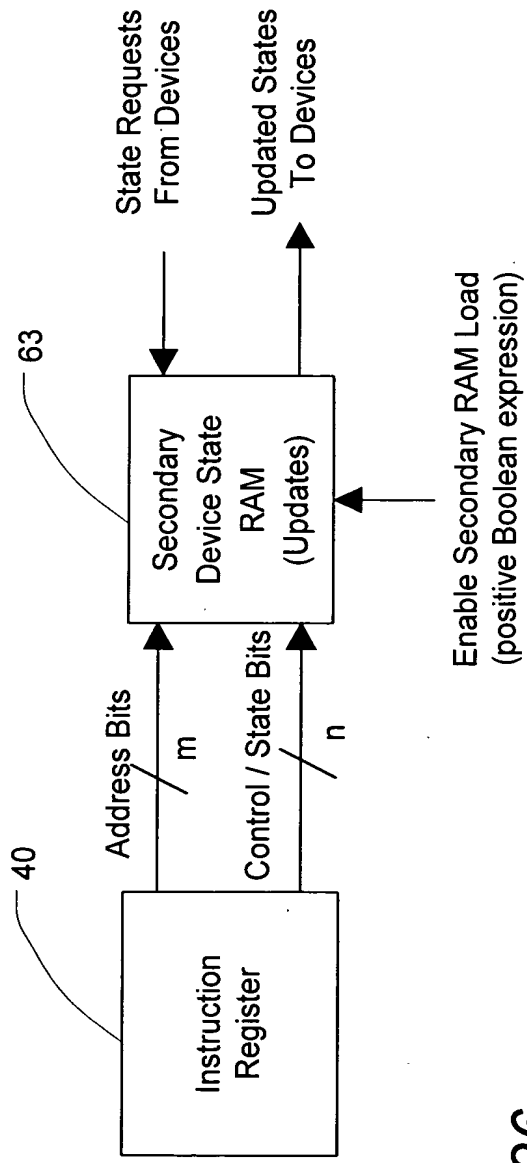
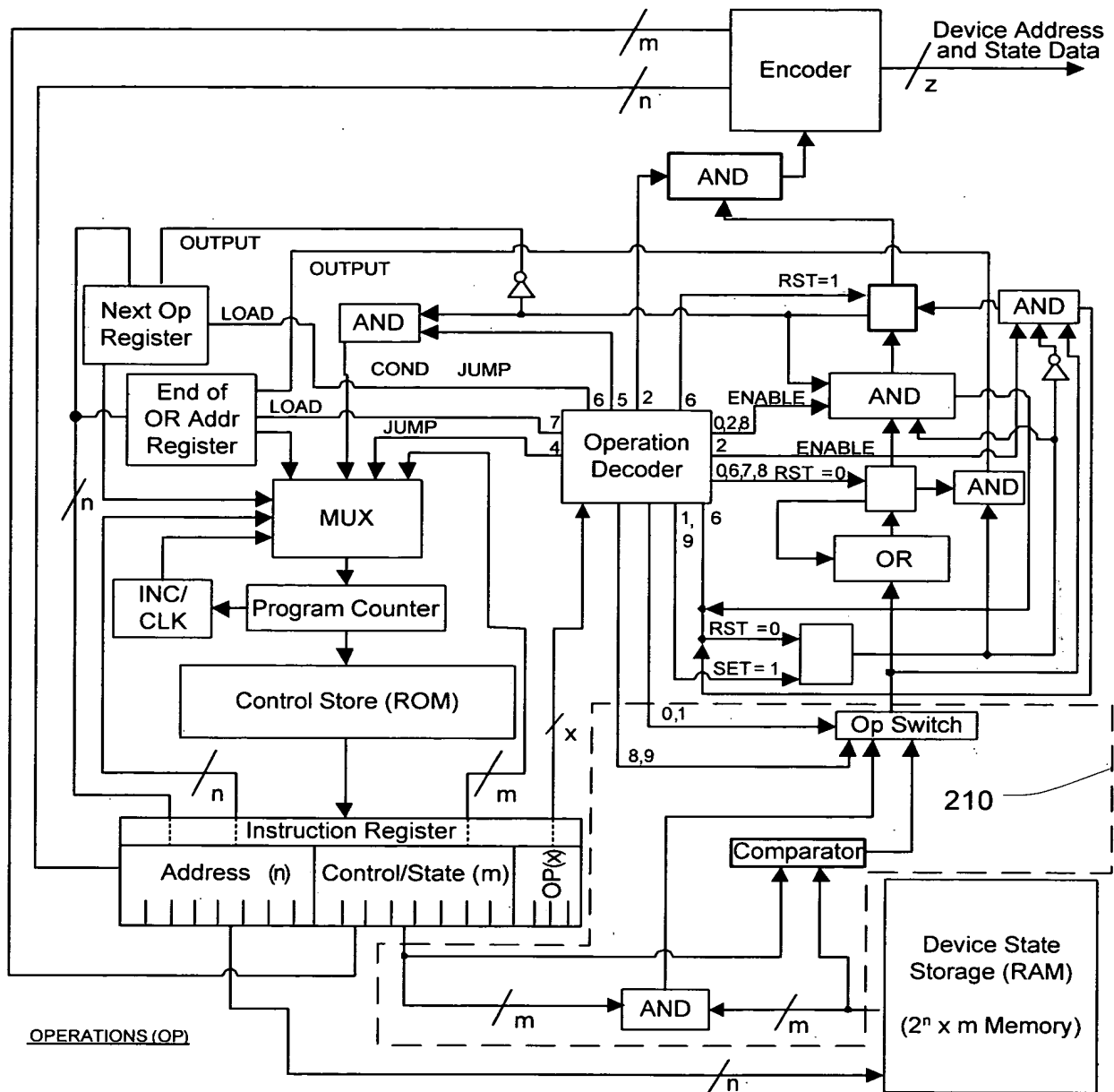


Fig. 36



# OPERATIONS (OP)

- 0 = AND OPERATION
- 1 = OR OPERATION
- 2 = END OF OPERATION (SEND ADDRESS & CONTROL WORD TO DEVICES IF CNF STATEMENT IS TRUE)
- 3 = NO OPERATION
- 4 = UNCONDITIONAL JUMP
- 5 = CONDITIONAL JUMP
- 6 = START OF OPERATION
- 7 = START OF OR CONJUNCT
- 8 = AND COMPARE
- 9 = OR COMPARE

# LEGEND

- $n$  = number of addressable devices
- $m$  = maximum number of states per device
- $z$  = number of control lines (bus size/width)

*Fig. 37*

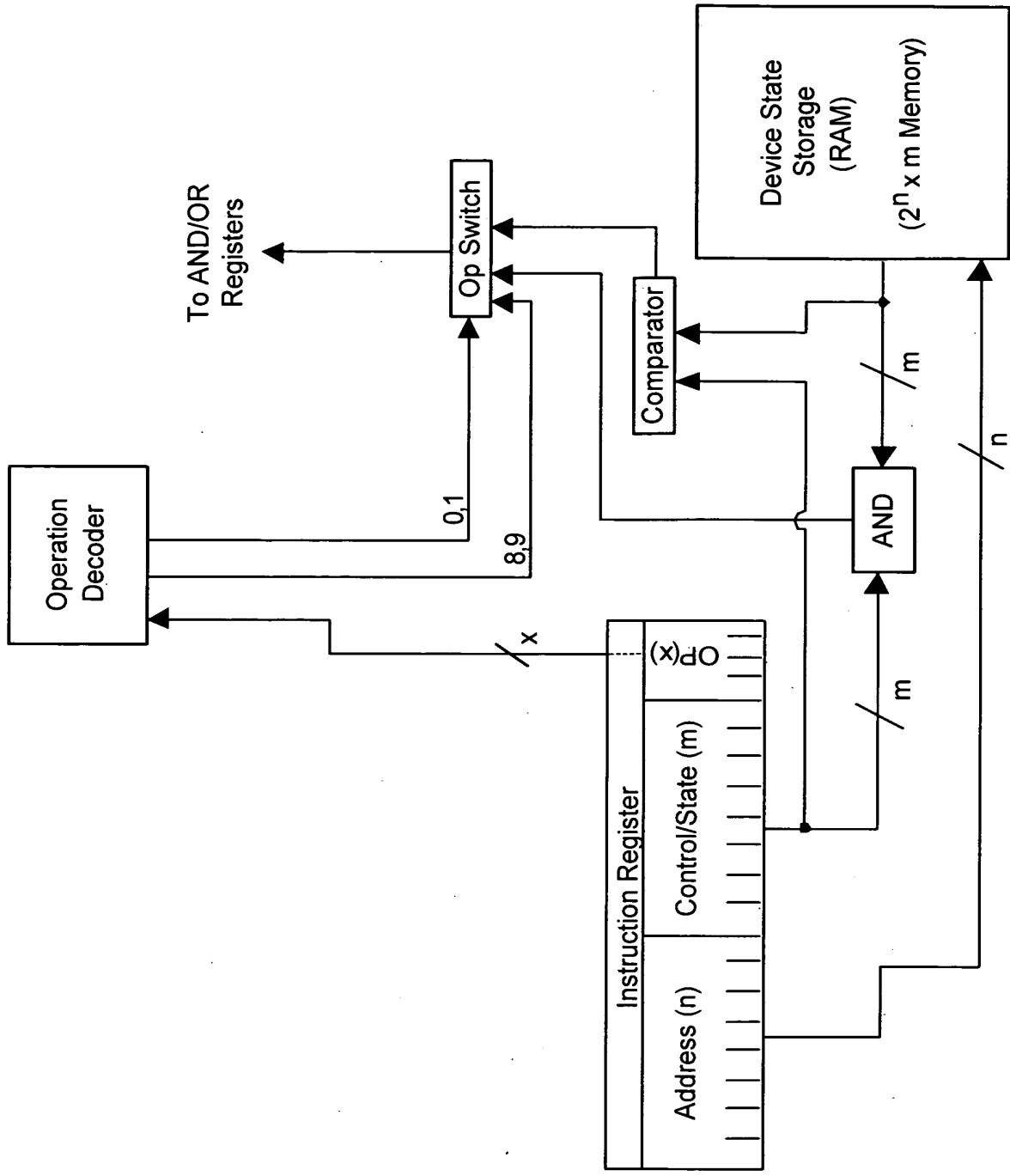


Fig. 38



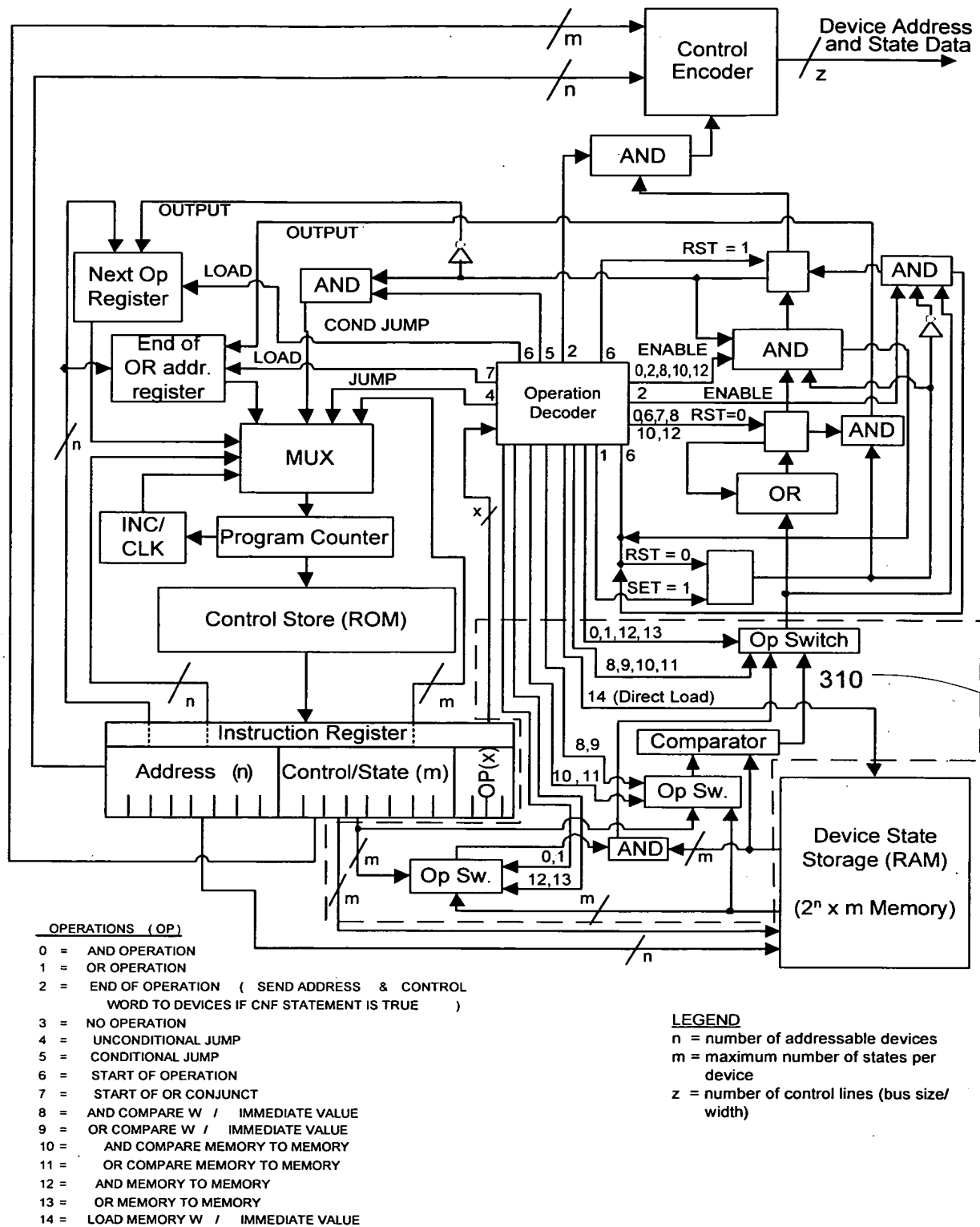


Fig. 39

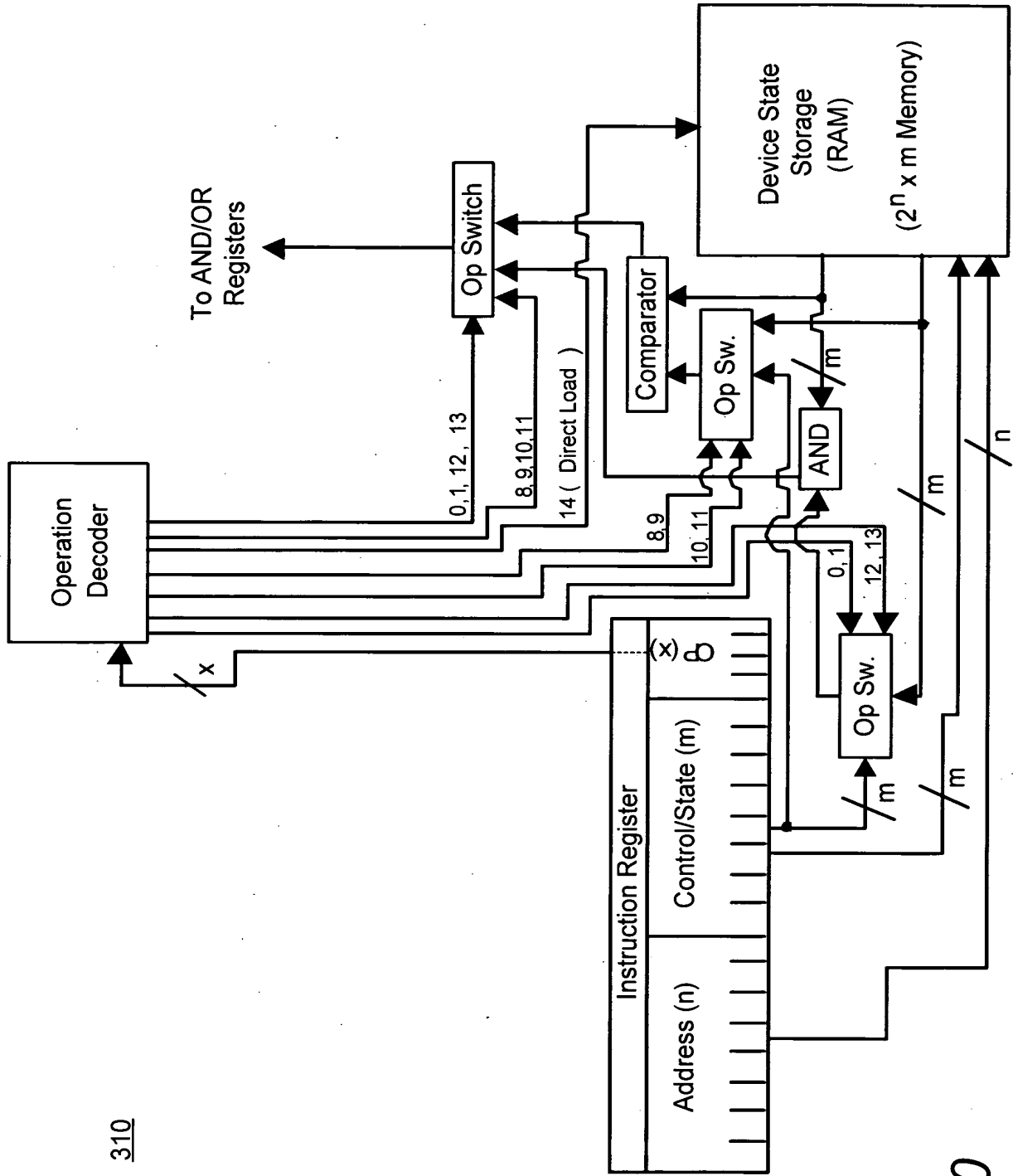


Fig. 40

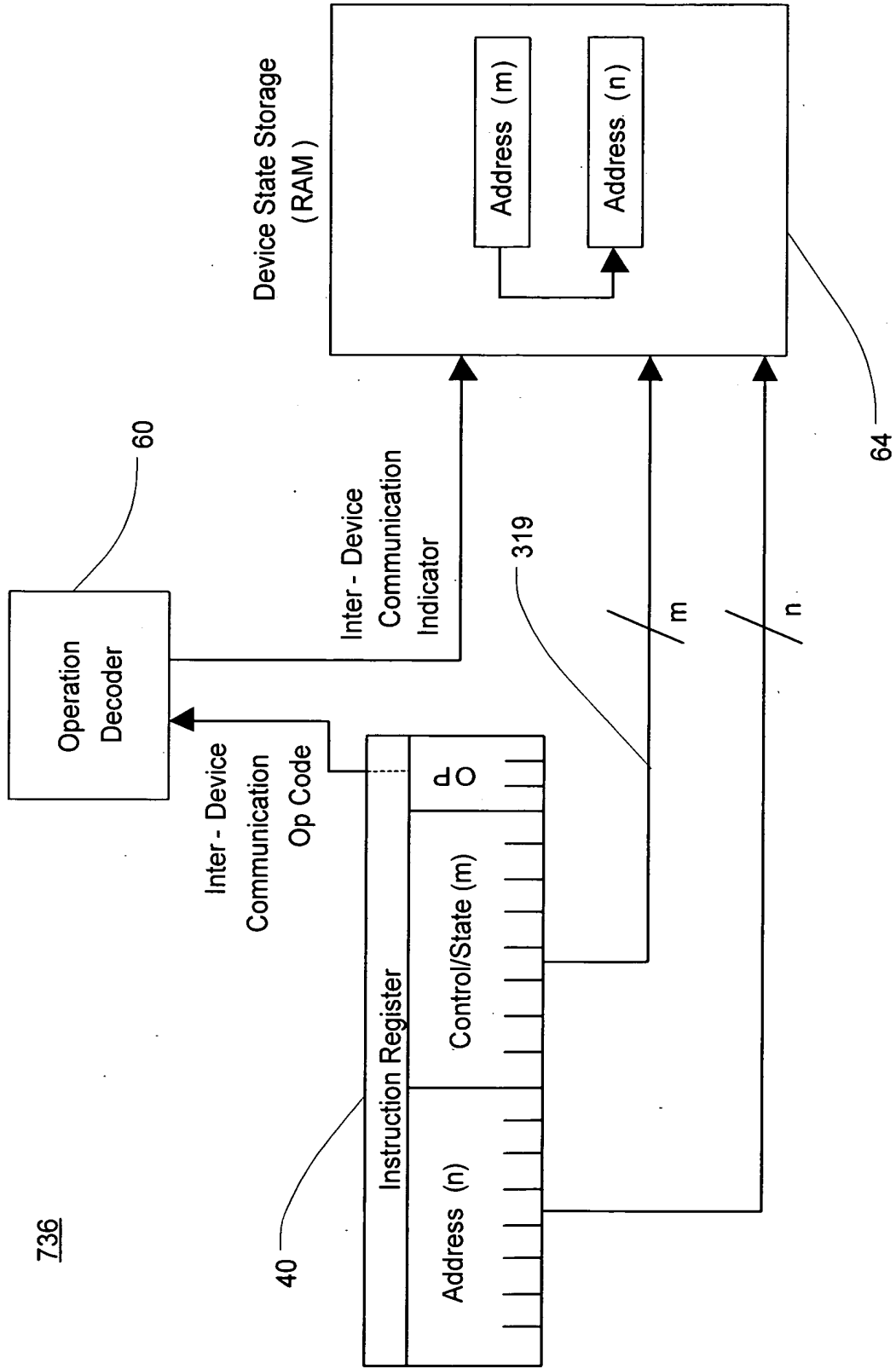


Fig. 41

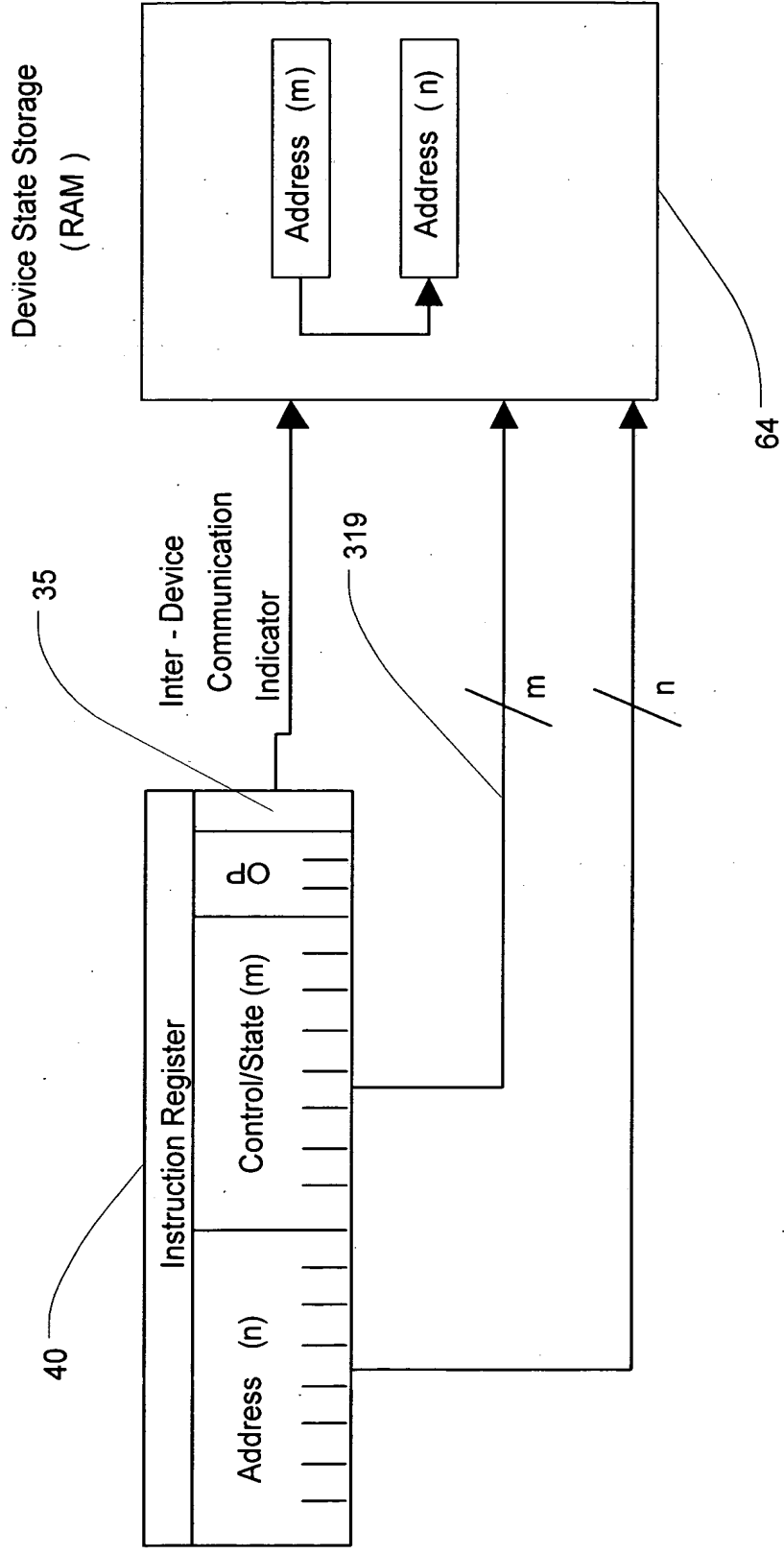


Fig. 42

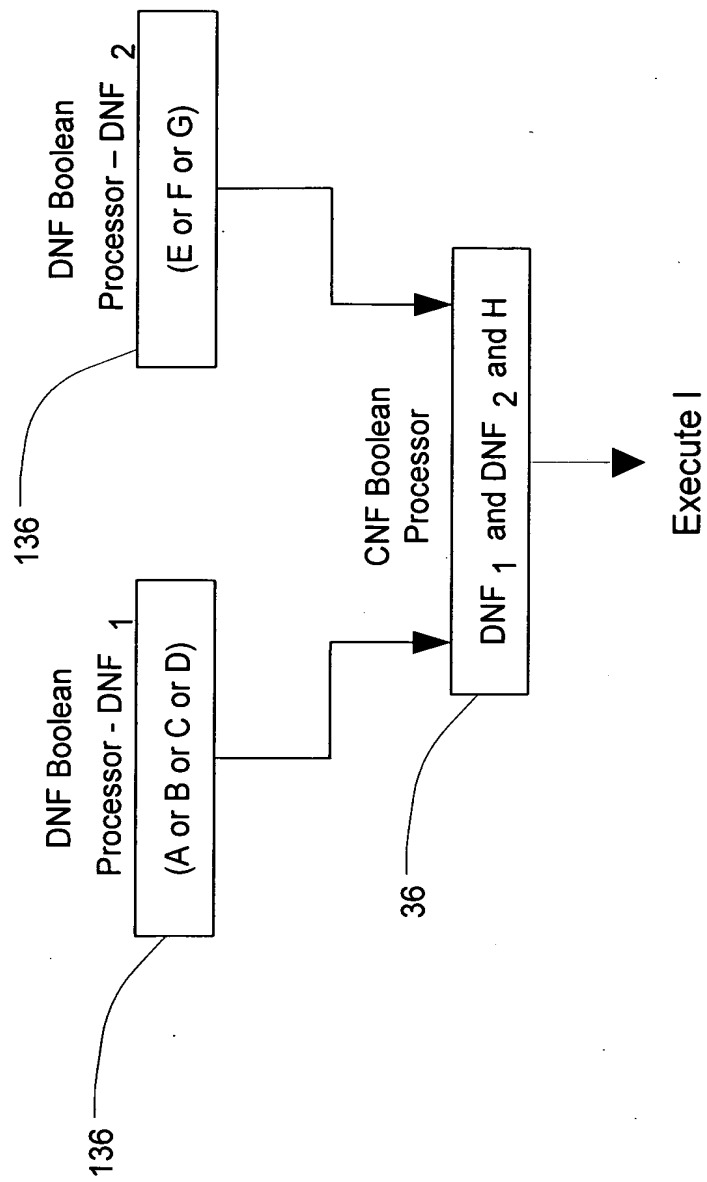


Fig. 43